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No. ——

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1983

THE ENSIGN-BICKFORD COMPANY,
Petitioner,

v.

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION,

and

RAYMOND J. DONOVAN, SECRETARY OF LABOR,
Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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January 18, 1984

QUESTIONS PRESENTED

Petitioner,* a defense contractor, was found by the Occupational Safety and Health Review Commission to have willfully violated the general duty clause of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 654(a)(1). This finding was upheld on review by the United States Court of Appeals for the District of Columbia Circuit, despite the lack of evidence of any "aggravating factors" which were previously required before a finding of a "willful" violation could be made. The following questions are presented:

1. Whether, under Section 4(b)(1) of the Occupational Safety and Health Act, 29 U.S.C. § 653(b)(1), which provides that the Act will not apply to employees for whom other federal agencies regulate working conditions, the Occupational Safety and Health Administration lacked jurisdiction over Petitioner since the Department of Defense had promulgated safety regulations covering Petitioner's activities?

2. Whether an employer may be found guilty of a "willful" violation of the Occupational Safety and Health Act based on mere indifference, as found by the court below, without the aggravating factors or "reckless disregard" or "obstinate refusal to comply" required by the decisions of other circuits as a prerequisite for finding willfulness?

3. Whether the finding that Petitioner willfully violated the general duty clause of the Occupational Safety and Health Act deprived Petitioner of Due Process as guaranteed by the Fifth Amendment to the Constitution in that the statute is too vague to permit a constitutional finding of a willful violation?

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* The Ensign-Bickford Company has the following parent and affiliated companies: Ensign-Bickford Industries, Ensign-Bickford Exports, Inc., and Ensign Bickford Realty Corp.

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OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION,

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RAYMOND J. DONOVAN, SECRETARY OF LABOR,
Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

The Ensign-Bickford Company ("Ensign-Bickford") petitions that a writ of certiorari issue to review the opinion and judgment in this case of the United States Court of Appeals for the District of Columbia Circuit.

OPINIONS BELOW

The opinion of the court of appeals (App. A)[1] is reported at 717 F.2d 1419 (D.C. Cir. 1983). The decision of the Administrative Law Judge of the Occupational Safety and Health Review Commission ("OSHRC") (App. B) and the OSHRC Order denying review (App. C) are unreported.

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[1] App. refers to the Appendices to this Petition.

JURISDICTION

The judgment of the court of appeals was entered on September 16, 1983. A timely petition for rehearing and a suggestion for rehearing *en banc* were denied on October 20, 1983 (App. D). The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

The Fifth Amendment to the United States Constitution states in pertinent part:

> "No person shall be . . . deprived of life, liberty, or property, without due process of law. . . ."

Section 4(b)(1) of the Occupational Safety and Health Act of 1970 (the "Act"), 29 U.S.C. § 653(b)(1), states in pertinent part:

> "Nothing in this chapter shall apply to working conditions of employees with respect to which other Federal agencies . . . exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health."

Section 5(a) of the Act, 29 U.S.C. § 654(a), states:

> "Each employer—
>
> (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
>
> (2) shall comply with occupational safety and health standards promulgated under this chapter."

Section 17(a)-(c) of the Act, 29 U.S.C. § 666(a)-(c), states:

> "(a) Any employer who willfully or repeatedly violates the requirements of section 654 of this title, any standard, rule, or order promulgated pursuant

to section 655 of this title, or regulations prescribed pursuant to this chapter, may be assessed a civil penalty of not more than $10,000 for each violation.

"(b) Any employer who has received a citation for a serious violation of the requirements of section 654 of this title, of any standard, rule, or order promulgated pursuant to section 655 of this title, or of any regulations prescribed pursuant to this chapter, shall be assessed a civil penalty of up to $1,000 for each such violation.

"(c) Any employer who has received a citation for a violation of the requirements of section 654 of this title, of any standard, rule, or order promulgated pursuant to section 655 of this title, or of regulations prescribed pursuant to this chapter, and such violation is specifically determined not to be of a serious nature, may be assessed a civil penalty of up to $1,000 for each such violation."

STATEMENT OF THE CASE

Ensign-Bickford is a Connecticut manufacturer of explosive and pyrotechnic devices. In 1978, Ensign-Bickford was engaged, under contract with the Department of Defense ("DoD"), in producing training rockets. DoD had promulgated safety regulations governing these operations and Ensign-Bickford had passed a DoD inspection of its operating procedures for conformity with those safety regulations.

The training rocket's head contained a pyrotechnic mixture which would "flash" on impact with a target. Since bulk preparation of the mixture would be a safety hazard, the actual blending took place at the point of filling the rocket heads. The two components of the mixture, a fuel and an oxidizer, were kept in limited quantities near a head loading machine for blending just before head assembly.

Once the heads were filled, excess powder was vacuumed from an interior lip of the head assembly before

a paper seal was installed. Two vacuum pumps and connecting lines were kept on a cart in the head assembly area for this purpose. In one of the pumps, a lubricator designed to place an oil mist in an air line had been mistakenly installed in place of a trap for the accumulated powder. A filter modified to serve as a trap was installed on the other pump. On September 14, 1978, one of the vacuum pumps mechanically failed, resulting in an explosion which injured several employees in the area.

This incident became the basis for a citation of Ensign-Bickford by the Secretary of Labor through the Occupational Safety and Health Administration ("OSHA") for violating the general duty clause of the Act, 29 U.S.C. § 654(a)(1). Specifically, the Secretary charged that Ensign-Bickford willfully failed to provide adequate means to prevent the flash powder from entering the vacuum pumps.

Following nine days of trial, an administrative law judge (ALJ) of the OSHRC found against Ensign-Bickford, and affirmed the proposed citation and penalty of $10,000, the maximum permitted under 29 U.S.C. § 666(a) (App. B). The ALJ utilized the DoD Contractor's Safety Manual for Ammunition, Explosives and Related Dangerous Materials as the exclusive source of industry standards concerning the handling of the flash powder. He concluded that Ensign-Bickford's collection system failed to meet these standards in four areas. Although the ALJ recognized that Ensign-Bickford had taken steps to reduce the hazards from handling the flash powder, he found that its failure to take certain other steps demonstrated "plain indifference" to the requirements of the Act, a degree of misconduct which he found was sufficient to establish a willful violation.

A timely petition for discretionary review by the full OSHRC was denied (App. C) and the ALJ's decision became the final decision of the OSHRC on April 12,

1982. Ensign-Bickford then filed a petition for review in the United States Court of Appeals for the District of Columbia Circuit, pursuant to Section 11(a) of the Act, 29 U.S.C. § 660(a).

The court of appeals rejected Ensign-Bickford's argument that the existence and enforcement by DoD of its safety requirements (wholly apart from the fact that Ensign-Bickford had passed a DoD inspection) preempted regulation under the Act. It held that the DoD Manual did not constitute an "exercise [of] statutory authority" as defined in 29 U.S.C. § 653(b)(1), apparently because the remedies available to DoD were less severe than the penalties available under the Act. App. 4a-5a.

The court also held that the general duty clause of the Act was not unconstitutionally vague (App. 3a-4a), and that a willful violation of that clause could be recognized. App. 7a. Finally, the court found that a showing of "plain indifference" to OSHA requirements could support a "willful" violation absent any additional aggravating factors. *Id.*

In dissent, Judge Scalia pointed out that the structure of the Act made negligent failure to maintain safety standards a "serious" violation, thereby requiring that a "willful" violation be supported by employer misconduct surpassing negligence. This principle was supported by the cases finding willful violations in other circuits, all of which had records demonstrating aggravating factors beyond mere lack of care—which is all that Ensign-Bickford could be charged with.[2] Judge Scalia noted that requiring evidence of conscious disregard of employee safety to establish willfulness was particularly appropriate in dealing with the general duty clause since it imposed no particular standard of conduct for employers.

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[2] Ensign-Bickford does not concede that its conduct rose to even this level, but accepts that finding for the purpose of this proceeding.

Ensign-Bickford timely filed a petition for rehearing and suggestion for rehearing *en banc*. The petition and suggestion were denied without opinion on October 20, 1982 (App. D).

REASONS FOR GRANTING THE WRIT

There are three aspects of this case which warrant review by this Court. In the Act, Congress exempted employers which are subject to occupational safety regulation by another Federal agency. The court of appeals nevertheless found that Ensign-Bickford was subject to OSHA regulation despite the detailed regulation of defense contractors' handling of explosive materials by DoD. Indeed, the precise activity at issue here—the head loading process—fell directly within the contractual and regulatory requirements imposed by DoD *and* the ALJ relied on the DoD regulations to affirm the citation. The court of appeals' rationale for this ruling has no support in the statute and represents an unprecedented restriction of the exemption in Section 4(b)(1) of the Act.

This Court has never construed Section 4(b)(1). If the opinion below stands, an important question of Federal law will be obscured by the confused and incorrect approach taken by the court of appeals to avoid the dictate of the Act. The practical importance of this question to innumerable defense contractors and other employers is evident since they will become subject to regulation of their working conditions by different Federal agencies with differing mandates and potentially inconsistent requirements.

Second, although Ensign-Bickford was charged with a "willful" violation, neither the OSHRC nor the court below could point to any of the aggravating factors which other circuits have required to support a finding of a willful violation of the Act's general duty clause. The court's willingness to find a willful violation in these circumstances cannot be squared with the Act for it does away with any distinction between "serious" and "will-

ful" violations and reduces the Act's three-part division of violations to two. The court's holding, as pointed out by Judge Scalia in dissent, also conflicts with the approach taken by every other circuit to have addressed this issue.

Finally, the holding that Ensign-Bickford willfully violated the general duty clause offends the Due Process clause of the Fifth Amendment since the statute is too vague and indefinite to afford employers any notice of specific requirements of conduct. These issues, which have divided the circuits, pose important questions concerning the administration of the Act and call for review by this Court.

I. Regulation of Ensign-Bickford by DoD Deprived OSHA of Jurisdiction

Ensign-Bickford argued before the OSHRC and the court of appeals that OSHA had no jurisdiction over this matter because DoD regulated Ensign-Bickford's employees' safety in handling flash powder. This argument is based on the clear, unequivocal language of Section 4(b)(1) of the Act which states:

> "Nothing in this chapter shall apply to working conditions of employees with respect to which other Federal agencies . . . exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health."

The Secretary of Defense is empowered to issue regulations setting conditions for defense procurement. 5 U.S.C. § 301; 10 U.S.C. § 2202; *see Reed v. Franke*, 297 F.2d 17, 22 (4th Cir. 1961). Exercising that authority, the Secretary of Defense established the Defense Acquisition Regulations (DAR), *codified in* 32 C.F.R. ch. 1, subch. A. Under DAR ¶¶ 1-323.1, 7-104.79, all procurement contracts involving explosive materials must include a requirement that the contractor comply with the DoD Contractor's Safety Manual for Ammunition, Explosives and Related Dangerous Materials (DoD Man-

ual 4145.26M). Ensign-Bickford's contract with DoD contained this clause, requiring Ensign-Bickford to follow over 100 pages of detailed specifications.[3] DoD officials inspected Ensign-Bickford's manufacturing procedures, including those that were the subject of the complaint here, and approved them as in compliance with the Manual. J.A. 425-26.[4] Had the DoD inspectors determined that Ensign-Bickford was not in compliance with the Manual, the contract could have been terminated, production would have ceased, and any possibility of an accident would have been averted. This action would have substantially penalized Ensign-Bickford by depriving it of the profits from its multi-million dollar contract with DoD.

The most telling evidence of the error committed below is that while the OSHRC and the court of appeals denied that these extensive DoD regulations deprived OSHA of concurrent jurisdiction, they relied exclusively upon the same DoD regulations to supply the "industry standard" against which Ensign-Bickford's conduct would be judged. App. 5a-6a; 16a-17a; 19a-20a. Thus, while holding that the DoD Manual was of sufficient significance to form the basis of affirming the citation against Ensign-Bickford, the court of appeals denied that the Manual was an " 'exercise [of] statutory authority to prescribe or enforce standards or regulations' sufficient to justify preemption. . . ." App. 4a.

The stated rationale for this apparent dichotomy was that to allow preemption of OSHA jurisdiction "would permit any federal agency to dilute, without congressional approval, the safety standards and remedies contained in the Act." *Id.* (footnote deleted).[5] Section

[3] The Manual was introduced into the record before the OSHRC.

[4] J.A. refers to the Joint Appendix in the court of appeals.

[5] The fact that Ensign-Bickford became subject to the DoD regulations as a result of its contract with DoD does not alter the fact that its workplace was, at the time the OSHA citation relates to, directly regulated by DoD.

4(b)(1) of the Act, however, explicitly states that when another agency regulates occupational safety, there is no OSHA jurisdiction, thus belying the court of appeals' contention that preemption of OSHA regulation in these circumstances lacks Congressional approval.[6] Furthermore, the court's allusion to the inadequacy of the remedies available to DoD (App. 4a n.3) establishes a legal principle that not only has not been adopted by any other court, but one that is also based on a thoroughly illogical premise.

The DoD penalty of contract termination potentially costs violators millions of dollars in profits. On the other hand, the OSHA penalty—which the court below somehow deemed more efficacious as an enforcement tool—is limited in the first instance to a maximum fine of $10,000. 29 U.S.C. § 666. Thus, the court of appeals' decision represents an unprincipled restriction of the effect of Section 4(b)(1), a holding that will hamper Congress' effort to avoid duplicative regulation.

The case law interpreting Section 4(b)(1) is as clear as the statute itself. If:

(1) another Federal agency having authority over employee health and safety;

(2) actually exercises that authority;

(3) so as to affect the specific working condition involved in an OSHA citation,

an OSHA citation cannot stand for want of jurisdiction. *U.S. Air, Inc. v. OSHRC*, 689 F.2d 1191, 1192-1193 (4th Cir. 1982); *Columbia Gas of Pennsylvania, Inc. v. Mar-*

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[6] The authority relied on by the court of appeals, Baltimore & O. R.R. v. OSHRC, 548 F.2d 1052, 1054-55 (D.C. Cir. 1976), does not support the court's holding. That decision holds only that concurrent regulation of one aspect of an employer's activities does not foreclose OSHA regulation of other aspects of its operations. In the case at bar, however, the DoD Manual was explicitly concerned with the very matters which were the subject of the OSHA citation.

shall, 636 F.2d 913, 915-916 (3d Cir. 1980); *Southern Pacific Transportation Co. v. Usery*, 539 F.2d 386, 389-391 (5th Cir. 1976), *cert. denied*, 434 U.S. 874 (1977); *Southern Ry. Co. v. OSHRC*, 539 F.2d 335, 336-339 (4th Cir.), *cert. denied*, 429 U.S. 999 (1976); *Organized Migrants in Community Action, Inc. v. Brennan*, 520 F.2d 1161, 1166 (D.C. Cir. 1975). These standards were not applied below. In rejecting Ensign-Bickford's claim, the court examined neither the validity of the statutory authority under which DoD promulgated safety regulations, nor the validity of its exercise.

This case represents more than a conflict among the circuits. When Congress enacted Section 4(b)(1), it sought to avoid waste by mandating single agency supervision of employee safety. The court below has muddled the administrative scheme and confounded congressional intent so as to invite waste. As in *City of New York v. Saper*, 336 U.S. 328, 329 (1949) (Bankruptcy Act), this is a "matter . . . of considerable practical importance in the administration of" an area dominated by Federal action. And, as in *United States v. Ruzicka*, 329 U.S. 287 (1946) (district courts and the Secretary of Agriculture), the decision below raises important administrative questions as to the enforcement authority under the legislation of different Federal bodies.

Moreover, the decision below raises important issues concerning the personal safety of American employees. By throwing open the question of which agency supervises which work site, the court of appeals' decision creates the likelihood of multiple inspections and possibly inconsistent or conflicting citations. The court of appeals' decision thus is at odds with both the Congressional mandate and the holdings of all other courts of appeals which have considered the effect of Section 4(b)(1). Because of the importance of this issue to thousands of work places which may become subject to inconsistent and duplicative regulation, a writ of certiorari should issue.

II. The Court of Appeals' Holding that "Willful" Misconduct May be Found Without Aggravating Circumstances is Inconsistent with the Act and Creates a Conflict Among the Circuits

The court of appeals affirmed the conclusion of the OSHRC that Ensign-Bickford's failure to follow certain procedures evinced "plain indifference" to OSHA requirements, but did not point to any so-called "aggravating factors" demonstrative of an intent to violate the Act.[7] The court concluded, however, that these findings supported a citation for a willful violation of the Act—permitting the imposition of the most severe penalty allowed under the Act for a single violation.

The court's decision disregards the carefully differentiated penalty structure contained in Section 17 of the Act, 29 U.S.C. § 666. It also directly conflicts with the definition of "willful" established by the Third Circuit and with a somewhat different formulation as applied by other courts of appeals. As such, it represents a dangerous broadening of the concept of willfulness under the Act and requires review by this Court.

In *Frank Irey, Jr., Inc. v. OSHRC*, 519 F.2d 1200, 1207 (3d Cir. 1974), *aff'd en banc*, 519 F.2d 1215 (3d Cir. 1975), *aff'd on other grounds sub nom. Atlas Roofing Co. v. OSHRC*, 430 U.S. 442 (1977), the Third Circuit established a standard for judging whether an employer's conduct would support a willful violation of the statute.

> "Willfulness connotes defiance or such reckless disregard of consequences as to be equivalent to a knowing, conscious, and deliberate flaunting [sic] of the Act. Willful means more than merely voluntary action or omission—it involves an element of obstinate refusal to comply."

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[7] Since Ensign-Bickford reasonably believed that its operations were subject exclusively to DoD regulation, and had passed a DoD inspection, it would be hard to imagine circumstances in which an intentional disregard of OSHA requirements by it could be shown.

This construction conforms with the structure of the Act. Section 17 of the Act, 29 U.S.C. § 666, establishes penalties for three levels of violations. An employer who receives a citation for a violation which is deemed not to be serious *may* be assessed a penalty of up to $1,000. For a serious violation, a penalty of up to $1,000 *shall* be assessed. Section 17(k), 29 U.S.C. § 666(j), defines a serious violation as one from which "there is a substantial probability that death or serious physical harm could result . . . unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation." Violations which are caused by lack of diligence, or negligence, therefore were categorized as serious by Congress.

For a willful or repeated violation, however, the Act permits a penalty of up to $10,000, or ten times greater than that for a serious violation. As Judge Scalia wrote in dissent, "[s]ince negligent ignorance constitutes a 'serious violation,' a 'willful violation' presumably requires something more." App. 8a. By adopting a standard which permits a finding of a willful violation based solely on an employer's omissions, the court of appeals acted at odds with the Congress' delineation of three separate categories of violations, holding, in essence, that evidence which might demonstrate a serious violation could, without more, also support a finding of a willful violation. By contrast, the Third Circuit properly required evidence of an intent to disregard OSHA requirements before a violation could be deemed willful.

In *Georgia Electric Co. v. Marshall*, 595 F.2d 309, 319 (5th Cir. 1979), the Fifth Circuit adopted a definition of willfulness somewhat different from the Third Circuit's in *Frank Irey*:

> "[W]e define a willful violation as one involving voluntary action, done either with an intentional disregard of, or plain indifference to, the requirements of the statute."

For some time after the *Georgia Electric* decision, several counts concluded that the opposing *Irey* and *Georgia Electric* views did not constitute a real conflict, but were more a "difference in emphasis." *See St. Joe Minerals Corp. v. OSHRC*, 647 F.2d 840, 847-48 & n.18; *Universal Auto Radiator Mfg. Co. v. Marshall*, 631 F.2d 20, 23 (3d Cir. 1980); *Babcock & Wilcox Co. v. OSHRC*, 622 F.2d 1160, 1167-68 (3d Cir. 1980); *Cedar Construction Co. v. OSHRC*, 587 F.2d 1303, 1305 (D.C. Cir. 1978). In each of those cases, however, the conduct at issue would have satisfied either test for willfulness, making a decision as to which standard controlled unnecessary.

The courts which actually have had to decide between the two standards have labored in their analysis instead of dismissing the formulations as identical. *See National Steel and Shipbuilding Co. v. OSHRC*, 607 F.2d 311, 313-316 (9th Cir. 1979); *Intercounty Construction Co. v. OSHRC*, 522 F.2d 777, 779-780 (4th Cir. 1975), *cert. denied*, 423 U.S. 1072 (1976). Those courts have recognized that there is a vast difference between "reckless disregard" or "obstinate refusal to comply" and "plain indifference."

While the seemingly inconsistent standards applied in defining willfulness may have been of little moment because cases decided under the "plain indifference" test have involved plainly egregious conduct, the majority in the instant case went much further. As Judge Scalia noted (App. 8a), the cases relied on by the majority all included the presence of "aggravating factors" such as a history of violations, deliberate disregard of established safety requirements, or failure to correct a known dangerous condition. No such factors are present in this case. Ensign-Bickford, as the majority concedes, took steps to safely collect and dispose of the flash powder, but those steps were found insufficient. The majority's conclusion that Ensign-Bickford's omissions, which oc-

curred while it was attempting to comply with DoD safety requirements, constituted a willful OSHA violation represents a substantial departure from the approach taken by other circuits. In contrast to the majority below, those courts have uniformly demanded evidence which shows some intent to ignore or violate safety standards—evidence which is entirely lacking in the record here.

If the court of appeals' decision stands, the determination of what constitutes a willful violation of the Act will be open to widely conflicting interpretations. As Judge Scalia commented, the majority's decision can only be reconciled with the position of other circuits if "language no longer has any meaning. . . ." App. 10a. This Court should resolve the long-standing and now growing conflict among the circuits which gives rise to this problem. The decision below renders the statutory distinction between serious and willful violations meaningless, despite the vast difference in penalties (including the possibility of criminal sanctions for willful violations) between the two, creating a state of legal confusion which portends nothing but endless litigation and injustice. *See Commissioner v. Bilder*, 369 U.S. 499 (1962) (need for uniformity in the enforcement of the tax code). The question also involves an area uniquely subject to federal control. The courts of appeals have had ample opportunity to consider the matter and, after a decade of decisions, it remains unresolved. *Cf. National Mutual Insurance Co. v. Tidewater Transfer Co.*, 337 U.S. 582 (1949). This question, therefore, warrants review by this Court.

III. The General Duty Clause of the Act Lacks Sufficient Clarity to Permit a Finding of Willful Violation

The court of appeals' confusion of the standards for establishing "serious" and "willful" violations of the Act creates more than just a problem of statutory construction; it also raises an issue of constitutional magnitude.

Ensign-Bickford was not prosecuted for failure to adhere to any of the specific safety regulations enacted pursuant to the rulemaking authority of Section 5(b) of the Act, 29 U.S.C. § 654(b). It did not fail to provide shoring in a trench of a specific depth; it did not fail to provide a specific safety device on a specific machine; it was not remiss in issuing designated safety equipment to employees performing specified dangerous tasks. Instead, the Secretary of Labor charged Ensign-Bickford under Section 5(a)(1) of the Act, 29 U.S.C. § 654(a)(1), the general duty clause, with failing to:

> ". . . furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees. . . ."

Because the general duty clause gives no notice to employers of what particular conduct is required or proscribed, the finding that Ensign-Bickford willfully violated it contravenes the Fifth Amendment's guarantee of Due Process. *See Smith v. Goguen*, 415 U.S. 566 (1974); *Grayned v. City of Rockford*, 408 U.S. 104 (1972); *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972); *United States v. National Dairy Products Corp.*, 372 U.S. 29 (1962); *Kropp Forge Co. v. Secretary of Labor*, 657 F.2d 119, 122 (7th Cir. 1981); *Lloyd C. Lockrem, Inc. v. United States*, 609 F.2d 940 (9th Cir. 1979); *Diebold, Inc. v. Marshall*, 585 F.2d 1327, 1335 (6th Cir. 1978).

The relationship between a vague statute and Due Process of law is clear. A vague statute creates a substantial risk that the innocent, absent fair warning, may be trapped in its unclear provisions. *Grayned*, 408 U.S. at 108. A willful violation of the Act may result in both civil and criminal penalties. Therefore, a provision of the Act for which a willful violation is charged must be "framed as to provide a constitutionally ade-

quate warning to those whose activities are governed." *Diebold*, 585 F.2d at 1336. *See also Lloyd C. Lockrem*, 609 F.2d at 940; *Kropp Forge Co.*, 657 F.2d at 122. The Fifth Circuit has recognized that due to its penal nature, the Act must be narrowly construed. *Diamond Roofing Co. v. OSHRC*, 528 F.2d 645, 650 (5th Cir. 1976).[8]

As Judge Scalia noted in dissent (App. 9a-10a), the OSHRC has itself perceived that a greater level of notice must be required before a willful violation is found, a distinction evident in *Georgia Electric Co. v. Marshall*, 595 F.2d 309 (5th Cir. 1979). There, a willful violation was found for failure to comply with a specific regulation; for a violation of the general duty clause, however, only a serious violation was found.

The general duty clause on its face certainly does not appear to provide any clear guidelines for employer conduct. Although the courts have limited liability under the Act to "preventable hazards," as noted by the court below (App. 3a-4a), they have done nothing beyond adverting to "industry standards" to specify what constitutes a "recognized hazard" for purposes of establishing civil or criminal liability. Of course, in this case, Ensign-Bickford had been found by DoD to be in compliance with its regulations, the only industry standards adverted to by the OSHRC.

Even if one accepts this judicial gloss as a constitutionally sufficient rehabilitation of the vague statutory language, the unresolvable anomaly remains of a willful violation of the general duty clause's vague commands.

Intention and free action are necessary to establish willfulness. Intention and free action must have an object. One must intend to do what the law proscribes

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[8] In Pratt & Whitney Aircraft v. Secretary of Labor, 649 F.2d 96, 101 n.2 (2d Cir. 1981), the court noted that for even a serious violation, the fact of the violation must be "reasonably foreseeable" to the employer.

or one must intend not to do what the law requires. Even if it is possible to fail negligently to create the hazard-free workplace required by the general duty clause, and therefore incur a serious violation, there can be no possible finding of an intent to violate a statute which requires no specific conduct.

To Ensign-Bickford's knowledge, this issue has not been considered at all by the court of appeals. The First and Third Circuit decisions cited by the court below (App. 7a) upheld willful violations of the general duty clause, but did not do so by rejecting a challenge based on the vagueness doctrine of the Fifth Amendment. *See Central Soya de Puerto Rico v. Secretary of Labor*, 653 F.2d 38 (1st Cir. 1981); *Empire-Detroit Steel Division v. OSHRC*, 579 F.2d 378 (6th Cir. 1978). This case, therefore, presents a serious question of the constitutionality of imposing a penalty for a willful violation of a completely indefinite statute which deserves review by this Court.

CONCLUSION

For these reasons, a writ of certiorari should issue to review the judgment of the United States Court of Appeals for the District of Columbia Circuit.

Respectfully submitted,

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January 18, 1984

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APPENDICES

APPENDIX A

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 82-1649

THE ENSIGN-BICKFORD COMPANY,
Petitioner

v.

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION and RAYMOND J. DONOVAN, SECRETARY OF LABOR,
Respondents

Petition for Review of an Order of the Occupational Safety and Health Review Commission

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Argued May 19, 1983

Decided September 16, 1983

James A. Wade, with whom *Timothy F. Bannon* and *Stephen B. Clarkson* were on the brief, for petitioner. *N. Beth Emery* entered an appearance for petitioner.

Robert D. McGillicuddy, Attorney, Department of Labor, with whom *Dennis K. Kade*, Attorney, Department of Labor, was on the brief, for respondents. *Edward H. Hoban*, Attorney, Occupational Safety and Health Review Commission, entered an appearance for respondents.

Before WRIGHT and SCALIA, *Circuit Judges*, and WEIGEL,* *Senior District Judge*.

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* Of the United States District Court for the Northern District of California, sitting by designation pursuant to 28 U.S.C. § 294(d).

Opinion for the court filed by *Senior District Judge* WEIGEL.

Dissenting opinion filed by *Circuit Judge* SCALIA.

WEIGEL, *Senior District Judge*: Petitioner, the Ensign-Bickford Company, challenges an order of the Occupational Safety and Health Review Commission (the Commission) finding that petitioner willfully violated the general duty clause of the Occupational Safety and Health Act of 1970 (the Act), 29 U.S.C. § 654(a)(1).[1] As a result of the violation, the Commission imposed a civil penalty of $10,000 on petitioner. Finding substantial evidence in the record to support the decision of the Commission that petitioner committed a willful violation of the Act, we affirm.

Petitioner, engaged in the manufacture of explosives and pyrotechnic devices, operates a plant in Simsbury, Connecticut. In the summer of 1978, under contract with the United States Department of Defense, petitioner began producing anti-tank test rockets at that plant. Production required that the nose cone of each rocket be filled with a pyrotechnic mix that would burn brightly upon impact. After filling with the mix, employees of petitioner would vacuum the excess powder from the cones and then seal the mix into each nose cone by using a paper disc. To vacuum the excess powder, employees used "pencil vacuums" attached by rubber suction hoses to two vacuum pumps. Each vacuum system contained a collection chamber to prevent the powder from reaching the pumps. The mix was highly unstable, and could explode if exposed to friction, static electricity, or heat, all

[1] That section provides:

(a) Each employer—

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees[.]

present in the pumps. On September 14, 1978, one of the two pumps exploded, scattering metal fragments which injured six employees, at least one seriously.

Later that same day, compliance officers from the Occupational Safety and Health Administration (OSHA) inspected petitioner's manufacturing facility. Based on that inspection and on subsequent interviews with employees of petitioner, the Secretary of Labor (the Secretary) issued a citation charging that petitioner willfully violated the general duty clause of the Act by failing to prevent the explosive mix from entering the pumps, and proposed a $10,000 civil penalty.[2] Petitioner contested the citation. The Secretary then filed a formal complaint before the Commission. After a hearing, the Administrative Law Judge (ALJ) upheld the citation and the proposed penalty. The Commission adopted the ALJ's decision and order. *See* 29 U.S.C. § 661(i).

Petitioner raises three primary issues on appeal.

First, petitioner contends that the general duty clause of the Act, 29 U.S.C. § 654(a)(1), is unconstitutionally vague. This claim has been rejected by those courts of appeals which have considered it. *See Bethlehem Steel v. OSHRC*, 607 F.2d 871, 875 (3d Cir. 1979); *Georgia Electric v. Marshall*, 595 F.2d 309, 322 n.32 (5th Cir. 1979). Furthermore, this Court has construed the general duty clause narrowly as requiring only that employers eliminate "preventable hazards" likely to cause death or serious injury to employees. *See National Realty & Constr. v. OSHRC*, 489 F.2d 1257, 1265-66 (D.C. Cir. 1973). This standard provides employers with suffi-

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[2] The citation specifically alleged that:

> The handling of the flash powder exposed the employees to an undue hazard, in that in Department 31 the employer did not provide adequate provisions for preventing the entrance of a Class B explosive (flash powder) into the duo-seal vacuum pump.

ciently specific notice of the requirements of the general duty clause. *See, e.g., McLean Trucking v. OSHRC*, 503 F.2d 230, 233-34 (5th Cir. 1974).

Second, petitioner argues that OSHA regulation of contractors with the Department of Defense is preempted by a Department of Defense Contractor's Safety Manual for Ammunition, Explosives and Related Dangerous Materials. *See* Joint Appendix at 489-92. 29 U.S.C. § 653 (b) (1) provides that "[n]othing in this chapter [enforcing OSHA requirements] shall apply to working conditions of employees with respect to which other Federal agencies * * * exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health." Petitioner contends that because petioner's contract with the Department of Defense requires petitioner to comply with that manual prescribing standards for petitioner's manufacturing activities, those activities are beyond the jurisdiction of the Commission.

The fact that petitioner bound itself in its contract with the Department of Defense to comply with the Department's safety manual on explosives manufacture does not have that effect. Such a contractual obligation does not constitute an "exercise [of] statutory authority to prescribe or enforce standards or regulations" sufficient to justify preemption under 29 U.S.C. § 653(b) (1). To hold otherwise would permit any federal agency to dilute, without congressional approval, the safety standards and remedies contained in the Act.[8] Preemption is appropriate only if a federal agency implements the regulatory apparatus necessary to replace those safeguards required by the Act. *See Baltimore & O. R.R. v. OSHRC*, 548 F.2d 1052, 1054-55 (D.C. Cir. 1976); *see also Southern*

[8] For example, the sole remedy available to the Department of Defense, after petitioner disregarded the safety standards set forth in the manual, was to terminate the contract. This stands in sharp contrast to the civil and criminal penalties provided for in the Act. *See* 29 U.S.C. § 666.

Ry. v. OSHRC, 539 F.2d 335, 336 (4th Cir.), *cert. denied*, 429 U.S. 999 (1976).

Third, petitioner argues that the record lacks sufficient evidence to support the ALJ's finding that petitioner committed a willful violation of the Act's general duty clause. The Act punishes three types of violations of its provisions: ordinary violations, which may be punished by a fine of up to $1,000, serious violations, for which a fine of up to $1,000 "shall be assessed," and willful or repeated violations, which may be punished by a fine of up to $10,000. 29 U.S.C. § 666. Although the Act does not define the term "willful," courts have unanimously held that a willful violation of the Act constitutes "an act done voluntarily with either an intentional disregard of, or plain indifference to, the Act's requirements." *Cedar Constr. v. OSHRC*, 587 F.2d 1303, 1305 (D.C. Cir. 1978); *see L.R. Wilson & Sons v. Donovan*, 685 F.2d 664, 667 n.1 (D.C. Cir. 1982); *Universal Auto Radiator Mfg. v. Marshall*, 631 F.2d 20, 23 (3d Cir. 1980); *Georgia Electric v. Marshall*, 595 F.2d 309, 319 (5th Cir. 1979); *Kent Nowlin Constr. v. OSHRC*, 593 F.2d 368, 372 (10th Cir. 1979); *Empire-Detroit Steel v. OSHRC*, 579 F.2d 378, 384-85 (6th Cir. 1978); *Western Waterproofing Co. v. Marshall*, 576 F.2d 139, 143 (8th Cir. 1978), *cert. denied*, 439 U.S. 965 (1979); *Intercounty Constr. Co. v. OSHRC*, 522 F.2d 777, 779-80 (4th Cir. 1975), *cert. denied*, 423 U.S. 1072 (1976); *F.X. Messina Constr. Corp v. OSHRC*, 505 F.2d 701, 702 (1st Cir. 1974).

The record sustains the conclusion that petitioner exhibited "plain indifference to" its duties under the Act's general duty clause. Petitioner had actual and constructive notice of the explosive properties of the pyrotechnic mix. *See* Joint Appendix at 487-88. Further, petitioner was aware of accepted industry standards for the safe vacuum collection and disposal of such a mix. Nonetheless, petitioner repeatedly ignored these standards.

Petitioner improperly assembled the collection chambers used to collect the excess pyrotechnic mix and prevent it from entering the pumps. The production manager of petitioner's Aerospace Division, although thoroughly familiar with the design requirements of such collection systems, delegated the design and implementation of those systems to a worker who had no expertise in assembling them, who was unaware of the many devices available for the safe collection of explosives and pyrotechnics, and who, as a result, built an improvised collection chamber which failed to function properly. *See id.* at 502-03.

Petitioner made no attempt to test the effectiveness of the collection chambers under production conditions. Industry standards require such a test. *See id.* at 503-04. Petitioner's failure to comply with those standards resulted in petitioner's failure to discover the inadequacies of its collection systems.

Additional evidence supporting the finding of willful violation is the fact that petitioner failed to empty the vacuum pump collection chambers once per shift, as required by accepted industry standards. This failure allowed dangerously large quantities of the pyrotechnic mix to accumulate in the pumps' collection chambers. In fact, the ALJ found that the collection chambers were not emptied at all on either September 11 or 12, 1978. This failure, he found, may have resulted in an accumulation of explosive mix in the pumps themselves. *See id.* On September 14, 1978, one of the two pumps exploded.

Petitioner argues that because willfulness requires a "specific intent" to violate a particular OSHA regulation, a willful violation of the Act can occur only when an employer violates a specific OSHA regulation and not when the general duty clause is violated. Petitioner argues further that even if a willful violation of the general duty clause is possible under the Act, no aggravating factors exist in this case similar to those upon which other courts have based findings of willful violation. Neither contention has merit.

Willful violation of the general duty clause of the Act is legally cognizable. *See Central Soya De Puerto Rico v. Secretary of Labor*, 653 F.2d 38 (1st Cir. 1981); *Empire-Detroit Steel v. OSHRC*, 579 F.2d 378 (6th Cir. 1978). If an employer demonstrates "plain indifference" towards the safety requirements of the general duty clause, no further showing is required to establish willfulness. An employer need not harbor malicious motives or possess a "specific intent" to violate a provision of the Act in order to commit a willful violation. *See, e.g., Babcock & Wilcox Co. v. OSHRC*, 622 F.2d 1160, 1167-68 (3d Cir. 1980); *Georgia Electric, supra*,, 595 F.2d at 318-19; *Empire-Detroit Steel, supra*, 579 F.2d at 385.

The absence of a specific aggravating factor, such as prior OSHA violations, does not preclude finding willful violation of the general duty clause if the finding is based upon conduct constituting "plain indifference" towards the Act's requirements. *See, e.g., St. Joe Minerals v. OSHRC*, 647 F.2d 840, 848 n.19 (8th Cir. 1981); *National Steel & Shipbuilding v. OSHRC*, 607 F.2d 311, 317 (9th Cir. 1979); *George Hyman Constr. v. OSHRC*, 582 F.2d 834, 839-40 & n.10 (4th Cir. 1978). Sufficient aggravating circumstances exist in the present case to support a finding of willfulness. Despite petitioner's expertise in the manufacture of explosive and pyrotechnic products and knowledge of the applicable industry safety standards, petitioner violated those standards in disregard of the general duty clause and of the safety of its employees. No further showing is required to establish willful violation of the Act. The decision and order of the Commission is affirmed.

SCALIA, *Circuit Judge*, dissenting: I concur in the court's legal analysis, but cannot join in the conclusion that the record contains sufficient evidence to support a finding of willful violation.

In order to establish the "intentional disregard" or "plain indifference" necessary for that purpose, it is not enough to establish that the employer's negligence was the cause of the violation. This is evident from the statute's definition of "serious violation," which provides that that lesser category of offense is not made out if "the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation." 29 U.S.C. § 666(j) (1976). Since negligent ignorance constitutes a "serious violation," a "willful violation" presumably requires something more.

All of the cases cited by the majority in which the agency's assessment of penalties for willful violation has been sustained involve aggravating factors not present here: prior citations for the same or similar violations, *see Cedar Constr. Co. v. OSHRC*, 587 F.2d 1303, 1305 (D.C. Cir. 1978); *Empire-Detroit Steel v. OSHRC*, 579 F.2d 378, 382 (6th Cir. 1978); *F.X. Messina Constr. Corp. v. OSHRC*, 505 F.2d 701, 702 (1st Cir. 1974); or deliberate disregard of a known safety requirement (often on the mistaken assumption that some other measure would suffice), *see Universal Auto Radiator Mfg. Co. v. Marshall*, 631 F.2d 20, 23 (3d Cir. 1980); *Kent Nowlin Constr. Co. v. OSHRC*, 593 F.2d 368, 372 (10th Cir. 1979); *National Steel & Shipbuilding Co. v. OSHRC*, 607 F.2d 311, 317 (9th Cir. 1979); *Western Waterproofing Co. v. Marshall*, 576 F.2d 139, 143 (8th Cir.), *cert. denied*, 439 U.S. 965 (1978); *Intercounty Constr. Co. v. OSHRC*, 522 F.2d 777, 779-80 (4th Cir. 1975), *cert. denied*, 423 U.S. 1072 (1976); or failure to remedy a visibly dangerous condition known to supervisory personnel, *see Central Soya De Puerto Rico v. Secretary of Labor*, 653 F.2d 38, 39-40 (1st Cir. 1981). Assessments for willful

violation have been reversed where no more than the lack of diligence or adequate care has been shown. *See, e.g., St. Joe Minerals Corp. v. OSHRC*, 647 F.2d 840, 848 (8th Cir. 1981); *Babcock & Wilcox Co. v. OSHRC*, 622 F.2d 1160, 1165-68 (3d Cir. 1980).

This court has recognized that violation of the general duty clause of the Act, as opposed to violation of a specific regulation issued by the Secretary, raises special problems of interpretation. *See National Realty & Constr. Co. v. OSHRC*, 489 F.2d 1257, 1265-67 (D.C. Cir. 1973). It poses special problems of proof as well.

> As a practical matter . . . a more concrete evidentiary showing is required to prove willfulness in the . . . context [of violation of the general duty clause].

St. Joe Minerals Corp. v. OSHRC, supra, 647 F.2d at 847. This is so because, where a specific action has been mandated by law, the duty of observance is more prominent and categorical—so the level of inattention necessary to establish "indifference" is less. When, however, only a general obligation of safe practices is involved, it must be appreciably clearer, in order to establish willfulness, that the requirements for safety were either known and consciously disregarded, or else not a subject of the employer's concern.

This principle seems to have been acknowledged by the Commission itself. In *Georgia Electric Co. v. Marshall*, 595 F.2d 309 (5th Cir. 1979), civil penalties were imposed after a death occurred by reason of the unfortunate confluence of two violations: the erection of a steel lightpole too close to an electrical transmission line, and the reversal of the control levers on a company crane, so that when the lever was pushed in the direction marked "up" the crane would in fact go down. For the former violation, which contravened a specific regulation prohibiting the erection of steel poles within ten feet of transmission lines, the Commission imposed, and the court

sustained, a penalty for *willful* violation; for the latter, which was a violation of the general duty clause, the Commission imposed, and the court sustained, a penalty for *serious* violation. The major difference, I believe, was that it was easier to discern "plain indifference" when an explicit directive of the Commission was violated than when a general obligation of safety (whether the obligation to have equipment controls marked properly or the obligation to follow generally accepted industry safety standards) was not complied with.

Here, it seems to me nothing was established except that the employer should have known that the industry standards had not been met (he has plausibly but erroneously claimed, even through this appeal, that they *were* met) and should have taken more effective measures to assure compliance. Ensign-Bickford took steps to design and implement a vacuum collection system and to collect and dispose of the pyrotechnic mix. Those steps were inadequate, but unless language no longer has any meaning I do not see how "plain indifference" rather than blamewortly negligence (constituting a "serious violation") could have been found.

APPENDIX B

UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND
HEALTH REVIEW COMMISSION

No. 78-4945

SECRETARY OF LABOR,
Complainant

v.

THE ENSIGN-BICKFORD COMPANY,
Respondent

AMALGAMATED CLOTHING AND TEXTILE
WORKERS UNION OF AMERICA, AFL-CIO,
Authorized Employee Representative

DECISION

This is an enforcement proceeding by the Secretary of Labor under the Occupational Safety and Health Act, 29 USC §§ 657-678. The Commission has jurisdiction because Ensign is engaged in interstate commerce.

I

The issues and the holding

Ensign is a manufacturer of explosive and pyrotechnic products both for military use and for blasting and other civilian purposes. For the development and manufacture of these and antecedent items Ensign has operated a plant in Simsbury, Connecticut, since 1836. It is an experienced DOD supplier, its Aerospace Division presently selling about 95% of its production to that agency.

In 1977 DOD invited bids on a proposal that it be supplied with a quantity of 35 millimeter subcaliber practice rockets, M73, hereinafter called "the rocket". The rocket was designed to train troops in the use of an actual weapon which it simulated. The actual weapon, designed by Picatinny Arsenal, can be carried, aimed and discharged by a single soldier, and is intended to possess sufficient fire power to destroy a tank. The practice rocket, also designed by Picatinny, carries, like the actual weapon, propellent and an igniter; but in place of the explosive charge it has a plastic nose cone containing about a gram and a quarter of a specified pyrotechnic mix which, unconfined, burns brightly on impact for about two seconds, thus indicating to observers whether a "kill" has been scored. Confined, however, it could explode with deadly force.

Ensign bid for and was awarded the contract; and in due course it set up what it deemed to be suitable production lines. On one of these the nose cones, inverted, were filled with the mix, after which the mix was to be sealed in by affixing an adhesive paper disc over the bottom of each cone. In order to make the disc adhere, the rim of the up-ended cone had to be free of excess mix which the filling operation left behind. To remove that excess, Ensign determined to use a vacuum type system of collection in which negative pressure was provided by so-called "duo-seal" rotary vane pumps. Ensign put one of these collection systems into operation in about the middle of August; and on about September first, it put into operation a second. On September 14, 1978, while the first system was not running, the other exploded, scattering metal fragments and injuring four young women tending the two systems and two more who were working near by. After inspection and investigation OSHA cited Ensign for willfully violating the general duty clause, § 5(2)(1) of the Occupational Safety and Health Act, 29 USC § 654(a)(1), in that

> The handling of the flash powder exposed the employees to an undue hazard, in that [i]n Department #31 the employer did not pr vide adequate provisions for preventing the entrance of a Class B explosive (flash powder) into the duo-seal vacuum pumps.

To sustain the allegations of the complaint, which closely tracks the citation, OSHA had to prove: (a) that Ensign's vacuum collection systems exposed employees to the risk that the mix might enter the pumps with the concomitant danger to them of serious physical harm; (b) that the hazard was "recognized:, i.e., that Ensign was chargeable with knowledge of the hazard or that the hazard was recognized in the industry engaged in manufacturing munitions of the general category here involved;[1] and (c) that measures to render the workplace free of the hazard as recognized were feasible technologically[2] and economically;[3] and (d) that Ensign's violation was willful within the meaning of § 17(a) of the Act, 29 U.S.C. § 676(a). Ensign denied the material allegations of violation and willfulness, with its main thrust on the facts devoted to an attempt to show that the injuries suffered by personnel were caused by an unforeseeable petroleum vapor explosion in the second pump, not by mix which entered the pump and exploded, as alleged. Ensign also raised various legal defenses, i.e.: (1) that the general duty clause is so vague that it failed to notify Ensign as to the nature of the duty sought to be imposed herein; (2) that the general duty clause claim in principle and as here alleged is so vague that it may not be made the basis for a claim of willfulness; (3) that

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[1] *Usery* v. *Marquette Cement Manufacturing Co.*, 565 F.2d 902, 910 (1977); *REA Express* v. *Brennan*, 495 F.2d 822, 825 (1974).

[2] *Society of Plastics Industry* v. *OSAHRC*, 509 F.2d 1301, 1308-1310 (CA 2 1975), cert. den. 421 U.S. 992.

[3] *America Textile Manufacturers Institute* v. *Donovan*, —— U.S. —— (1981), 101 S. Ct. 2478, 2490, 2501-2504.

the complaint fails to state a claim upon which relief can be granted because it fails to allege that the citation was based on a preventable accident; and (4) that if Ensign was willful at all, it was willful when it designed and put each of the collection systems into operation, not weeks later, when the second pump exploded.

I find that OSHA proved its case by a preponderance of all of the evidence, both as to violation and as to willfulness. I find that Ensign's collection systems did expose the employees to the hazard of serious bodily harm from explosion due to particles of the mix entering the pumps and there being ignited; that Ensign was chargeable with notice of the hazard; that by feasible measures the workplace could have been rendered free of this recognized hazard; and that the quality of willfulness was present on September 14, 1978, as alleged. Hence I affirm the citation. And the parties having stipulated that if there was a violation and if it was willful, the proposed penalty of $10,000 would be appropriate, I affirm the proposed penalty as well.

II

Ensign had notice that its performance of the rocket contract would involve it in the handling of a dangerous instrumentality, i.e., a sensitive pyrotechnic, with the hazard of serious injury to production employees.

DOD had notified Ensign as to the dangerous components and characteristics of the mix from the outset. As part of the bid package Ensign received the "Major Component Safety Data Statement" dated November 6, 1975, as supplemented January 7, 1976, and April 6, 1977, collectively marked as Ex. C14. The components of the mix were three fuels, antimony sulfide, 3.5%, sulfur 10%, and powdered aluminum, 22.5% and an oxidizer, potassium perchlorate, 64%. As to the characteristics of

the mix, the statement warned that the in-process hazards classification was 2, which the mix shared with many high explosives; "detonation". Ex. C14, 6 Nov. 75, sheet 3, showed a penetration of 0.272 inches on the test block as compared with 0.868 inches for TNT; and it contained special warnings with respect to the aluminum: the powder "may be easily ignited or initiated to explosion by discharge of static electricity and when compounded with oxidizing agents [e.g., potassium perchlorate] . . . is a dangerous fire and explosion hazard:; as a dust, it "may ignite when exposed to heat or flame or by chemical action with oxidizers"; water must be kept away, since "[e]volution of hydrogen gas may result in explosion." In the statement, Picatinny, the rocket's designer, summed up the mix as "extremely sensitive to friction and electrostatic discharge and can be initiated by heat or flame, and impact. Precautions must be taken to prevent accidental exposure to these stimuli." Ex. C14, 1975 edition, sheet 3; 1976 supplement, sheet 2.

Furthermore Ensign's own statement as to how the nose cones were to be loaded admits Ensign's knowledge as to the hazardous nature of the mix. Headed "Process Specification," it consists of the last seven sheets of the 15-page Exhibit C1. To be sure, it makes no direct reference to the vacuum collection operation, but it contains several passages which show that Ensign was aware of the extremely sensitive nature of the mix once the oxidizer had been added to the fuels, as was the case with respect to the excess mix to be collected by the vacuum systems. Thus the Process Specification requires in Part 5.3 that in each nose cone the oxidizer and the fuels must be separately loaded, followed by the warning, "All handling of mix in its final stage must be done behind barricades, with operator and equipment properly grounded." These provisions were reiterated as follows at the end of Part 6: "NOTE: Due to sensitivity of the final mix the last component Potassium Perchlorate will not be added until

final loading stage." And again at the end of Part 7: "NOTE: Once blended the flash mix is highly sensitive to initiation by impact, static electricity and friction."

Since, as appears from the Safety Data Statement, the mix could detonate with a force roughly equivalent to a fourth of that generated by TNT, I find that if the mix reached the pumps and exploded, the resulting hazard would involve the risk of serious bodily injury or death.

III

OSHA presented a body of expert opinion to the effect that collection of a pyrotechnic by vacuum exposed employees to the hazard that the pyrotechnic would be sucked into the pumps and there initiated to explosion, which hazard could feasibly be eliminated by three measures: (a) interposing between the primary collection source and the pump a "wet" collection chamber using as the collection medium a light mineral oil; (b) testing all components before putting the system into the production line; and (c) emptying the collection chamber at least once in each production shift.

In addition OSHA presented expert opinion as to a closely related measure to free the workplace from the hazard of personal injury if the mix should enter the pump and explode: personnel should be shielded from the pumps and the collection chambers. An issue as to whether or not Ensign violated the general duty clause by omitting such shielding must be treated as if raised by the pleadings because it was litigated by consent.

When Ensign was awarded the rocket contract it had not yet determined what method it would use for loading the mix into the nose cone, much less what method it would use to collect excess mix. But as required by the DOD Procurement Regulations, 32 CFR § 7-104.79(b), it

had agreed as part of the contract that in manufacturing the rocket it would "comply with DOD Contractor's Safety Manual for Ammunition, Explosives and Related Dangerous Materials (DOD Manual 4145.26 M)", edition of October 1968, Ex. C5, hereinafter called "the manual." Especially in its Part 1500, "Collection and Destruction Standards for Ammunition and Explosive Material", the manual is quite explicit on the measures referred to in the heading of this Part III.

(a) *Collection systems; collectors.*

(i) *Design and function.* A collective system shall be designed to minimize the accumulation of explosive dust in parts other than the collection chamber or chambers, and to prevent pinching explosives, especially in the form of dust or thin layers between metal parts. The manual uses "collection chamber" and "collector" synonamously. A collection system must include at least one primary collector and a pump. A primary collector must receive at least one separate exhaust line from each room requiring vacuum collection, with each exhaust line or "common header" serving not more than two bays. Wet primary collectors are preferred; the number of wet primary collectors feeding into a second collector shall be kept to a minimum" but only two dry primary collectors may be serviced by a secondary collector, and the pump on each dry collection system shall be protected by two collection chambers installed in series. Part 1502(f)(1).

Decisively distinguishing a wet collector from a dry, a wet collector shall "provide for proper immersion of explosives, breaking up air bubbles to release air-borne particles and removal of moisture from the air before it leaves the collector to prevent moistened particles of explosives from entering the small piping between the collector and . . . pump." Part 1502(f)(5).

(ii) *Use of collectors.* The removal of less sensitive explosive dusts, such as TNT, tetryl, explosive D, composi-

tion B, and pentolite, should be carried out by a vacuum system. The preferred type of system should in general include a "wet collector," which moistens the dust "close to the point of origin" and keeps it wet until the dust is removed for disposal. More sensitive explosives such as black powder, lead azide, mercury fulminate, tracer, igniter, including compositions and pyrotechnic materials may be collected in the same manner, provided they are maintained wet, with the wetting agent "close to the point of intake." Vacuum lines from points of application of vacuum to wet collectors "should be as short as possible." Collection of scrap pyrotechnic, tracer, flare and similar mixtures in No. 10 mineral oil "is required in order to minimize potential fire and explosion hazard of the material. * * * Such materials collected in the dry state should be placed in an oil containing receptacle at intervals throughout the shift, prior to disposition by burning." Part 1502(e), (f)(1).

(b) *Testing.* "[A]ll new or newly repaired process equipment for use in hazardous operation shall be examined and actually tested to assure that it is in safe working condition" before being placed in routine operation. "If machinery or equipment does not appear to function properly, operations shall be discontinued if the immediate stoppage does not create a new hazard," Part 307(a).

(c) *Periodic removal of collected material from chamber.* "Explosive dust shall be removed periodically from the collection chamber at intervals to eliminate unnecessary and hazardous concentrations of explosives but not less frequently than once every shift." Part 1502(f)(6).

(d) *Shielding of work stations from collection systems.* Additional provisions of the manual express a body of expert opinion to the effect that the workplace may be freed from preventable hazard in the event that mix particles should enter the pump and there explode. "The

cardinal principle to be observed in any location or operation involving explosives, ammunition, [or] severe fire hazards . . . is to limit the exposure . . . of personnel [to a minimum number] for a minimum time, to a minimum amount of hazardous material consistent with safe and effective operation." Part 603(b)(1). Implementing that broad principle, the manual provides as follows with respect to collectors such as those in the case at bar, each having a capacity not exceeding five pounds. "Dry collectors shall not be located in a bay or cubicle where explosives are present, but should be positioned outside the building or in a separate cubicle having substantial dividing walls . . ." while "[w]et type . . . collectors may be placed in explosives operating bays or cubicles. . . ." provided however that "[s]mall aspirator vacuum systems positioned in close proximity to work stations shall be shielded." Part 1502(f)(4), (8), (g)(3).

To be sure, the pleadings do not raise an issue as to whether or not Ensign violated the general duty clause by failing to shield from the collection chambers and pumps the adjacent work stations of six employees who were injured in explosion. But when Reilly testified about segregating, barricading or shielding, Minutes, 806-807; 986-989; 1452-1455, there was no objection as to materiality. Instead Ensign joined in litigating the point by cross-examining Reilly and by argument, see Ensign's main brief, page 25. See FRCP Rule 15(a), first sentence, and 3 Moore's Federal Practice, ed. 1980, page 15-157 ff., especially 169-170.

Thus the DOD manual was clearly relevant; and as such it was generally admissible. Rules 401, 402, FROE. To be sure, this is not an action to enforce the DOD contract; nor has the manual been incorporated by reference into any OSHA standard with the force of law. But on the crux of this general duty clause case, as some evidence of the state of opinion among experts concerned with the narrow question of personnel safety in the manu-

facture of products which include in their components military pyrotechnics, it is part of a class of material generally relied on by the courts and by the Commission as probative.[4] Accordingly OSHA presents it as evidence of the preponderant view.

IV

Of the four rules discussed in Part III hereof, Ensign does not dispute either the requirement that collection chambers must be emptied at least once a shift, or that on two of the three days immediately proceding the explosion, Ensign failed to empty the chambers. Ensign does, however, dispute that it violated the general duty clause in respect of the matters covered by the other three rules; and in that connection it advances the following counter-considerations.

(1) Mix entering the pumps would be desensitized by the lubricating oil within pump chambers, whereupon the pumps would clog up and stop without hazard to employees.

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[4] OSHA enforcement proceedings: Army Corps of Engineers safety "policy", *National Realty & Construction Co.* v. *Secretary of Labor*, 489 F.2d 1257, 1262 (DC 1973); National Fire Code 1972, *Titanium Metals Corp.* v. *Usery*, 579 F.2d 536, 541 (CA 9 1978). Tort actions: Army Corps of Engineers safety manual, *Fluor Corp.* v. *Black*, 338 F.2d 830, 832 (CA 9 1964); "nationally recognized standards concerning the design of highway and railroad crossings, *Boston & Maine Railroad* v. *Talbert*, 360 F.2d 286, 290 (CA 1 1966); American Safety Standards Institute Code on Cableways and Conveyors, *Wallner* v. *Kitchens of Sara Lee, Inc.*, 419 F.2d 1028, 1032 (CA 9 1970); "Excerpts from several trade codes and manuals calling for guarding of floor openings. . . ." *Spurr* v. *La Salle Construction Co.*, 385 F.2d 322 (CA 7 1967); American Standards Association Safety Code for Floor and Wall Openings, Railings and Toeboards, *Stanley* v. *U.S.*, 347 F. Supp. 1088, 1094-1095 (Me 1972). See also *Dorsey* v. *Yoder Co.*, 331 F. Supp. 758, 768-769 (Ed PA 1971) af'd 474 F.2d 1339 (CA 3 1973), *Contra*, *Manhat* v. *U.S.*, 220 F.2d 143, 148-149 (CA 2 1954); *Mississippi Power & Light Co.* v. *Whitescarver*, 68 F.2d 928, 930 (CCA 1934).

(2) Testing the collection chambers was adequate and showed them to be effective in trapping the mix before it could enter the pumps.

(3) Water was an appropriate liquid collection medium instead of oil.

(4) Even under the manual, segregating or barricading the pumps and collection chambers from work stations was required only in respect of "dry" systems, whereas the systems here were "wet".

None of these counter-considerations is valid.

(1) Desensitizing the mix in the pump chambers instead of in impinger-type collection chambers would materially decrease employee safety.

(2) Testing was grossly inadequate.

(3) Water was not a safe liquid collection medium for use with the mix.

(4) Even under the manual, seggregating or barri- from the pumps and collection chambers was an important safety requirement, here fully applicable.

The above-discussed rules set forth in the manual express the preponderant expert opinion as to the safe vacuum collection of the mix herein. Although Ensign was cognizant of the hazards which the rules dealt with through its agreement to comply with the manual, Ensign failed to comply with the rules, thereby violating the general duty clause.

A.

Ensign does not dispute the applicability of Part 1502 (f) (6) of the manual requiring that collection chambers on vacuum collection systems handling pyrotechnics be emptied at least once each shift. Compare Ensign brief, pp. 20-25. Furthermore the following facts are undisputed. The rocket project in general and the lower and upper

collection systems in particular were operating for at least one full shift on Monday, September 11th, Tuesday, September 12th, Wednesday, September 13th, and until the explosion at about 1 p.m. on Thursday, September 14th, 1978. Neither collection chamber was emptied on Monday or Tuesday; both were emptied on Wednesday; and on Thursday at the time of the explosion the lower system had been shut down to enable the collection chamber to be emptied, while on the upper system, the pump on which exploded, the collection chamber had not been emptied.

In this posture I find that the manual requirement for emptying the collection chambers at least once a shift expresses the preponderant expert opinion as to prudent practice for eliminating from the workplace preventable hazard; that compliance with the requirement was feasible technologically and economically; that Ensign knew of the requirement or was legally chargeable with such knowledge; and that Ensign failed to comply. This constituted a violation of the general duty clause irrespective of the explosion.[5]

B.

Ensign disputes that it violated the general duty clause in respect of the manual rules other than the one as to emptying collection chambers, and advances the following counter-considerations.

(1) Any mix which was not retained by the collection chambers and which passed through to the pumps would not be initiated to explosion within the pumps. Instead the mix would be desensitized by the oil in the pump chambers, whereupon the inert particles would clog the pumps and bring them to a halt without employee hazard.

(2) Testing the collection systems was adequate. The lower system, the first implemented, was tested and demon-

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[5] See the cases discussed in Part VI(c), *infra*.

strated to be performing effectively its function of trapping the collection mix before the air stream could carry it to the pumps. Inspection after the test showed mix in the collection chamber but none in the small diameter pipe which connected the collection chamber to the pump. Turning next to the upper system, the upper pump was tested, demonstrating that it could draw down vacuum. Furthermore having tested the lower system with satisfactory results, having operated the lower system for approximately two weeks without incident prior to putting the upper system on stream, and McAllister, Aerospace Division supervisor of production engineering, having instructed Mundt, a laborer in the Division, to assemble the upper system by duplicating from the parts bin the components successfully used on the lower system, it was reasonable to project the lower system test results to the upper system; and Ensign is entitled to have its compliance with the manual's testing rule evaluated on the assumption that these instructions were carried out, thereby satisfying Ensign's obligation in the premises. Ensign brief, page 33.

(3) Water, the substance chosen as the liquid collection medium for the lower and the upper systems was appropriate: it would dissolve the chlorine in the potassium perchlorate, the oxidizing component of the mix, while not creating the hazard that hydrogen gas might evolve and explode. Hydrogen gas could evolve from a combination between the water and the powdered aluminum in the mix, but such gas would not here explode because the combination would occur within the collection chambers, either of which was part of one of the collection systems, which systems were open to the atmosphere. Unconfined hydrogen gas does not explode.

(4) Seggregating or barricading the collection chambers and pumps from all work stations was unnecessary. Even under the stringent requirements of the manual, there is an exception in the case of "wet" collectors the ag-

gregate capacity of which does not exceed five pounds. Ensign's collectors fell within the exception.

Ensign seeks a final order which would ignore its failure to comply with the rule with respect to emptying the collection chamber and would determine that in the light of these counter-considerations its practices herein did not violate the general duty clause.

C.

None of Ensign's counter-considerations is valid.

(1) To be sure, the burden is on OSHA to prove that a body of expert opinion existed calling for practices in the vacuum collection of pyrotechnic material, which practices would feasibly eliminate from the work place employee hazards known to Ensign or recognized in the industry engaged in manufacturing products such as the rocket, and that Ensign failed to implement such practices. OSHA has made out its *prima facie* case. It has shown that the manual is admissible evidence of expert opinion regarding employee safety in this kind of work, see Note 4, *supra;* it has shown that under the theory underlying the manual's Part 15 the operation of a rotary vane vacuum pump could initiate the explosion of pyrotechnic mix particles such as Ensign was here collecting, and that to keep the particles out of such pumps, impinger-type collection chambers must be interposed between the primary collection source—here the four pencil wands—and the pumps. Ensign's first counter-consideration would negate the manual's theory. According to Ensign, no collection chamber is necessary in order to insure employee safety: collection chambers are needed only to protect the pumps. Minutes 1372, 1765. In this state of the proof Ensign must do more than postulate its theory. It must go forward with proof to show that its postulate, not the manual rule, sets forth the practice most likely to bring about employee safety. To be sure it would be a heavy burden to go forward and demonstrate that mix

particles can be desensitized as effectively by merely permitting them to work their way through a pump[6] which may contain only two ounces of oil for lubricating purposes, Minutes, 1737, as by forcing the particles to bubble up through the oil bath in an impinger, then to break the surface, and then to fall back to the bottom of the impinger through the full depth of the oil bath. Likewise it would be a heavy burden to show that the mix particles can be as safely immersed in oil within the pump chamber with its whirling eccentric rotor operating at 500 revolutions a minute, its vanes moving in and out in concert, and its shoes pressing tightly against the inside of the chamber, as to carry out the immersion for an unlimited period of time within the stillness of the impinger, with no moving parts whatsoever.[7] The unsub-

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[6] According to Reilly, the oil in the pump chambers could have a desensitizing effect only to the extent that mix particles came in contact with the oil. Since the oil was present in the pump for lubrication, not desensitizing, "you would not have the assurance that it had desensitized as mineral oil in a trap might have done." Minutes, 957, 959.

[7] Reilly, OSHA's expert witness, had long years of experience in the Army in safety matters pertaining to explosives and pyrotechnics, including the vacuum collection thereof, and as a civilian official of DOD, he held the position of safety director of the entire Picatinny complex, in which capacity he supervised the safety of Picatinny's own manifold operations, which on occasion included production of the entire supply of a given item, although the main thrust of Picatinny was in research and development. He also had long experience in matters of compliance with the manual by civilian suppliers to DOD; and Reilly is now a very amply qualified (see Ex. C15) teacher of safety practices and general safety expert to private industry engaged in manufacturing explosives and pyrotechnics and products, military and nonmilitary, incorporating them.

Explaining the manual's philosphy behind its provisions requiring wet chambers on vacuum pump driven systems for collecting pyrotechnics, Reilly prefaced his opinion by pointing out that "vacuum pumps have been known to go many, many times, and collection chambers have been known to detonate." He then ex-

plained that a collection chamber is designed not only as a safe and convenient receptacle for accumulating and removing the collected material but also as the means for desensitizing the material and physically barring it from the pump chambers.

By Mr. Casler:

Q. And what's the purpose of having a collection chamber on a vacuum line?

A. Well, to collect the excess powder, for one thing, the powder that you're trying to remove. . . . And of course you want to make sure that its not getting into your vacuum system, itself. So, you usually have a system for attempting to keep the material from getting into an area that could cause a problem.

Q. Well, how could powder getting into the pump cause a problem?

A. Well, the pump itself is a source of heat, impact, friction and static.

Q. Okay, now how is the pump a possible source of each of those?

A. Well, the operational area, when you see something rotating in something else, you know you've got friction. The fact that it's rotating unless the pump . . . is delicately balanced, you're going to expect that some of that rotation is partially impact. The fact that you are moving a material through the air, is static charge. The fact that you have something separating periodically, is a possible buildup of static. Let's see, static, impact, friction, and, of course, the very fact that it was operating for any period of time, undoubtedly had to build up some heat (Minutes, 807-808).

See also MacAllister's diagrams of a rotary vane vacuum pump, Ex. C2, p. 3 and Ex. R31. and his explanation of the operation of the pump. Minutes, 1286-1296. See also excerpts from the manufacturer's catalog, Exs. C23 and 24.

Reilly produced an example of the collection chamber (Ex. C18) described in Part 1502(f)(5) of the manual. Known as an "impinger" (Minutes, 1418), it is listed at page 884 of the 1977 edition of the standard shopping guide for such devices, Best's Guide to Dust and Fume Control Equipment (Ex. C19), with ten suppliers, including E. I. duPont de Nemours & Co. Best calls it "Collecting Unit—Particulates—Wet Type" and summarizes it operation as one by which "Dust, fume, or mist particles may be precipitated

into a wet sludge by forced contact with water or oil." According to Reilly, impingers are obtainable in a variety of sizes, ranging in price from about 25 to about $100.

The impinger received in evidence is a single cylindrical glass vessel with an opening in the top closed by a dome shaped airtight glass stopper. The side of the stopper is pierced by an exhaust port which is piped to the vacuum pump, and through which the pump is able to place the vessel under negative pressure. The vessel is about half filled with the chosen liquid collection medium. At its apex the stopper is pierced by an integral glass tube. The upper end is the vessel's inlet port. (If Ensign had used impingers as the collection chambers on its lower and upper systems, the two pencil wands used on each system to pick up the particles of excess mix would have been piped to the inlet port of each impinger.) The tube extends downward to a point near the bottom of the vessel, well below the surface of the liquid collection medium. The impinger operates as follows. The negative pressure in the vessel creates negative pressure in the inlet port, resulting in an airstream transporting the particles to be collected. This stream is forced down through the tube, discharging into the liquid collection medium, through which it bubbles to the surface where the bubbles break, allowing the particles to fall into the liquid collection medium while the air, cleansed and dried by the bubbling process, is drawn, substantially pure, through the pump and exhausted to atmosphere (Minutes, 1419-1420; 1430-1431; 1455-1456; 1466). Asked for his opinion as to whether or not an impinger would have worked here, Reilly testified

> Yes, I believe it would. My opinion is it would, and I think they would have, in this case, done the job that they were looking for. Minutes, 1420.

To be sure, without seggregating or barricading the collection chambers and pumps from the work stations, the impinger alone would not have constituted compliance with Ensign's general duty clause obligations in the premises, but comparing impingers with the makeshift collection chambers with Ensign improvised, Reilly testified "I think it would have done a better job, yes sir." Minutes, 1456.

In his overall view, Reilly sought to give meaning to Part 1502(f)(5), which defines a wet collector in terms suitable for describing an impinger, and to Paragraphs (e) and (f)(1) of Part 1502, which indicate that a wet collector, to be useable with specified materials, must make the wet collection medium available to the collected particles "close" to the "point of intake," bearing

in mind that the distance between "points of application of vacuum and the wet collections should be as short as possible."

With the evidence including the rubber tubing which connected the pencils to the collection chambers,—the red, Ex. R3, had a length of about ten feet from pencils to chamber and the gray, Ex. R1(f), about seven and a half feet—Reilly first testified that the liquid collection medium was too far from the pencils to qualify the systems as "wet." Minutes, 892, 1005-1007. Later, he defined a wet system as one in which "you were collecting the material under immediate wetting conditions" or "you were putting the material directly into some sort of bath, rather than collecting it "dry" Minutes, 1428. Asked at that point how be would set up a wet collection system for "an operation such as the manufacturing problem that Ensign-Bickford was confronted with", Reilly testified:

> Well, the initial collection [of] the powder would have been dry, but it would have been introduced to a wetting media [sic] . . . of some sort that would have trapped the particulate matter while allowing the air to escape.

In view of the finely divided aluminum in the mix, "you would probably use a different media than water, probably as the manual suggests, a mineral oil type collection system." There were questions and answers, then, as follows:

> The Court: And would that have the effect of desensitizing or moving in the direction of desensitizing the powder?
>
> The Witness: Yes, sir.
>
> The Court: So it would make the collection device mechanically more effective, and it would hopefully add a safety factor in that it would operate in the direction of desensitizing the particulate?
>
> The Witness: Yes, sir.
>
> * * * *
>
> The Court: Well, now, do you have an opinion, Mr. Reilly, as to whether the most appropriate method of collection here would have been via a dry system as used, or a wet system as just testified to?
>
> The Witness: I would prefer the wet system, sir.
>
> The Court: Why?
>
> The Witness: Because . . . it would . . . be going towards the direction of desensitizing the material, along with collecting it and keeping it out of the air stream. Minutes, 1429-1430.

On the applicable portions of the manual and on the aggregate of Reilly's testing on this point preponderent expert opinion thus stands for the proposition that in order to qualify as wet collectors, the chambers on Ensign's lower and upper systems had to conform to Part 1502(f)(5), i.e., in effect they jad to be impingers, with No. 10 mineral oil as the liquid collection medium. In the premises, I do not reach the further question as to whether the mere length of the pencil wand tubings was a further ground for holding that the collection systems were "dry" rather than "wet."

Consistent with the sweep of OSHA's evidence on this point it is noteable that although Murphy thought that the need for impinger-type collectors was to protect the pumps, not the personnel, he too felt that the impinger was the device to use to keep vacuum collected particles out of the pump chambers. On cross-examination he testified that he had viewed the pre-production test on the lower system, and that in answer to his inquiry MacAllister had described to him the operation of the collection chamber on the collection system being tested. To illustrate the device which Murphy said MacAllister had described to him, Murphy drew a schematic diagram, Ex. C26, of an impinger. Cf. Ex. C18. Murphy then testified as follows regarding the diagram.

Q. Okay, now where does the air come in on that diagram?

A. To the area I marked ["]in["].

Q. Okay. And what does it enter there?

A. As I understood it, it enters into a tube—a part of a mechanism that came down and we put that below the water level.

Q. Okay and it came down through the mechanism?

A. Somehow, I don't—

Q. Through the tube.

A. Yes.

Q. Okay and it went below the water level?

A. To the best of my knowledge.

Q. And then what happened?

A. When it—it obviously was bubbling air in there and the air had to go somewhere and it came back up out and went out into the pump.

Q. Okay. And what's the purpose of bubbling that air through that liquid?

A. You want the reason why I had it done that way?

Q. Yes.

A. Just good practice in setting up vacuum type equipment is to * * *

Q. And how does that bubbling that water through the material help in that?

Obviously Mr. Casler meant "bubbling that material through that water", and that is the question which Murphy answered as follows:

A. Only in that it will act as an intermediate trap that pulls the material out.

Q. Okay. And that's by the operation of the air bubbling through the water?

A. No.

Q. Well, what's the purpose of having the air bubbling through the water?

A. To make sure that your particulate matter comes in under the water level.

Q. Okay. And what's the purpose of having the matter—the particulate matter come in under the water level?

A. To trap as much as possible.

(Minutes, 1765-1766).

Mr. Casler then showed Murphy Ex. R1(b), which was the actual lower collection chamber retrieved from the debris of the explosion, and made him admit that the metal piece extending down into the bowl was solid, not a tube, so that it could not possibly operate as an impinger—it could not force the incoming airstream transporting the particles to emerge below the surface of the collection medium and bubble to the surface. At that point Murphy volunteered

I'm not sure—

Whereupon the following questions and answers ensued.

The Court: What aren't you sure of, Mr. Murphy?

The Witness: I'm not sure of what I have drawn here is representative of what I understood at the time. This,

said the man who was then manager of production of the division,

was not my primary concern.

(By Mr. Casler, resuming) Okay but you've described how you understood it.

A. That's right. (Minutes, 1766).

stantiated opinions of Murphy, McAllister and Wergen notably fail to meet these burdens, and Ensign offers no report of any experiment demonstrating the validity of its postulate and showing that DOD, consistent with the stated purpose of the manual,[8] could scrap its body of pertinent safety rules. Since the cost of compliance with these rules is effectively paid by DOD as part of the price of the goods, it is reasonable to infer that the rules would not be in force if preponderant expert opinion did not deem them of substantial importance to DOD's program

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On redirect Mr. Wade now questioned Murphy as follows.

> Q. Okay, now the question I have for you is [,] based upon what knowledge did you draw the diagram?
>
> The Court: Are you impeaching him, Mr.—
>
> Mr. Wade: No, I'm just asking him. He drew a diagram. And I'm asking him based upon what knowledge did he draw it.
>
> The Court: Well, he based it on all his knowledge to date.
>
> Mr. Wade: Well, I want to hear it.
>
> (By Mr. Wade, resuming) This is primarily the way—
>
> The Court: Now, wait a minute, Mr. Murphy. Mr. Wade said based on what knowledge did you draw that diagram. Now tell him what knowledge you based that diagram on.
>
> The Witness: On the way I feel a filter should work (Minutes, 1771).

In other words, even though MacAllister hadn't used an impinger-type device on the lower system—indeed, MacAllister's evidence was that the chamber produced no bubbling (Ex. C2, page 5; Minutes, 1315)—Murphy was still of opinion that an impinger-type device was the one to use to keep collected material out of the pump chamber.

[8] Manual, Part 100. Purpose
The purpose of this manual is to set forth safe practices and standards for all work performed in connection with DOD contracts involving ammunition, explosives and related dangerous materials. This manual also prescribes safe methods, practices, and standards for insuring continuity for rotecting and safeguarding personnel, and preventing property damage at contraction operated plants.

of promoting the safety of the employees of its civilian suppliers.

I find that the preponderent expert opinion was to the effect that the collection chambers on Ensign's lower and upper systems should have been impingers, which would have provided a means of eliminating preventable employee hazard, which means was feasible both technologically and economically.

(2) As the vacuum collection systems were operating as part of the production line at the time of the alleged violation, i.e., on September 14, 1978, each system consisted of two primary collection sources—two pencil wands—piped to a rotary vane vacuum pump drawing through a makeshift collection chamber, described below. Ensign asserts no claim that the manual's requirement with respect to testing is inapplicable; and it concedes that neither system was tested under production conditions. Minutes 1334; 1524. Ensign's entire defense to this item depends on a pre-production test of the lower system, a defense which falls palpably short of its goal. According to Ensign, the test demonstrated that the lower collection chamber was effectively trapping the collected mix particles within its own bowl, so that none entered the pump. Thus, urges Ensign, the test results showed mix particles in the collection chamber bowl, but none in the short pipe which connected the collection chamber's exhaust port with the pump. Minutes, 1312-1313; Ex. C2, p. 8. But the clean exhaust pipe may have been signalling no more than that it was efficiently conducting the mix particles from the collection chamber to the pump. Reilly pointed out without challenge that the way to determine whether the mix was reaching the pump was to tear down the pump and inspect its insides. Minutes, 819-820. Failing such support, Ensign's claim was mere self-serving speculation.

Furthermore this pre-production test was carried out with only one vacuum pencil in use instead of two, for

which reason MacAllister deemed the test not typical of which the production runs would show. Minutes, 1349. Additionally, even if reliable information had been available as to the effectiveness of the lower system in screening mix particles from the pump, such information could not have been validly projected to the upper system. The power pump was a Watts Model 1402, with a lubricating oil capacity which MacAllister estimated at a quart, Minutes, 1370, 1373, while the upper pump, a Watts Model 1405, had a lubricating oil capacity of only half a pint. Minutes, 1373. According to MacAllister, because of this difference, the paths of particulate material which entered the two pumps was bound to be different. Minutes, 1305. Finally the collection chambers, also, were quite different[9] and Ensign made no attempt to equate their respec-

[9] To MacAllister's knowledge there were no traps available designed for the type of collection which he was implementing. Hence he determined to improvise a collection chamber from what was available in Ensign's parts bin. Ex. C2, p. 4. There he found a Miller compressed air filter, No. 602-4, Model 4. The exemplar of the device with which he started is Ex. C20. The purpose of this device is to protect compressed air driven tools from damage due to impurities in the airstream. The main parts of the device are a metal top containing an inlet port marked "in" and an exhaust port marked "out", a solid metal stud which holds in place a "deflector", a filtering "element', and a "lower baffle", and a plastic bowl with a capacity of eight ounces. The device is designed to operate as follows. Air, entering at the inlet port, is channelled downwards by the inlet manifold and the deflector in a swirling motion. the larger particles are thrown off by centrifugal force and fall between the wall of the bowl and the lower baffle into the "quiet zone", a dry area at the bottom of the bowl. The baffle redirects the air upwards, forcing it through the filter element which removes the fine particles and so it moves between the inside of the element and the stud and out the exhaust port. See Exs. C9 and C11 and Bodenrader at Minutes, 256-264. MacAllister gutted the inside, leaving only the deflector and the stud, which is integral with the head. Next he connected the vacuum pump to the inlet port and the pencil wands to the exhaust port and he filled the bowl half full of water. MacAllister hoped the device as modified would operate as a simple settling chamber in which the negative

airstream would transport the collected particles to the collection chamber, where they would fall by gravity into the water at the bottom, while the airstream would continue through the pump, which would exhaust it to atmosphere. Ex. C2, p. 5. The collection chamber could not operate as an impinger because transporting airstream did not discharge below the surface of the liquid collection medium; and according to MacAllister there was no bubbling, Id., p. 5, Minutes, 1315. Furthermore MacAllister's use of water as the liquid collection medium was expressly forbidden for use with this mix in Picatinny's Major Component Safety Data Statement, Ex. C14. The actual lower collection chamber, retrieved from the debris after the explosion, is Ex. R1b.

The origin of the upper collection chamber, which exploded, is unclear. According to the statement which he gave to Stewert, the Compliance Officer, on September 18, 1978, four days after the explosion, "Eric Mundt used the equipment I [MacAllister] gave to put the trap on the second pump." However, when it developed during the course of the investigation that the upper collection chamber had in fact been improvised from a Miller Compressed Air Lubricator, Part 606-3, Model 7, MacAllister professed surprice; but his testmony at the trial was very vague.

By Mr. Wade:

Q. All right. So, did you give him any instructions about what other equipment he was supposed to get?

A. Yeah, I guess you could say, I told him to get the equipment you need similar to bottom pump and hook it up.

The Court: Well, did you specify what he should get and how he should put it together?

The Witness: I don't recall that exactly.

The Court: Okay.

Q. (Mr. Wade, resuming) Did you go to the room with him and assist him in actually hooking it up?

A. No, I did not.

Q. After it was hooked up by him, did you go down to the room and inspect his work to see how he had done?

A. Not that I recall.

Q. All right.

The Court: And did you ever test it before the girls were turned loose to use it?

The Witness: No, I did not.

The Court: Okay. Do you know if anybody else tested it?

The Witness: No, I don't.

The Court: Did you instruct anybody to test it?

The Witness: No, I did not.

(Minutes, 1332-1333)

On cross-examination, MacAllister tried to explain what he thought Mundt would do in carrying out MacAllister's instructions regarding the upper chamber.

By Mr. Casler

Q. How much experience did you believe that Eric Mundt had in setting up equipment in an explosive line when you alleged that you assigned him that task?

A. He had a unit to copy, and I find that he's a fairly intelligent young man, mechanically inclined—

The Court: He had a what [to] copy, Mr. MacAllister?

The Witness: He had a copy to copy from, the lower pump. He's a fairly intelligent young man, he works on automobiles. I think it's fair to assume that he would know how to attach something when he already had something to look at. Minutes 1539-1540.

Even if MacAllister's improvisation for the lower system had been a fair and reasonable attempt by Ensign to depart from the manual and break new ground in the design of collection chambers, Ensign's reliance on the upper system in the face of MacAllister's ignorance as to what Mundt had in fact done in modifying the lubricator, Minutes, 875, and his failure to take the trouble to find out, would have been "plain indifference" by Ensign.

There are substantial differences between the lubricator, with which Mundt started, and the filter as modified by MacAllister for use as the lower collection chamber. The lubricator is designed to spray a film of oil into a compressed oil line in order to lubricate a compressed air driven tool. Its main parts are a metal head containing various subsidiary devices, a plastic bowl with a capacity of five ounces, the lower part of which is filled with oil, and a tube which extends from the head into the oil. Air enters at the inlet port at approximately 100 pounds per square inch. When the velocity increases by say 2 cubic feet per minute, a bypass opens allowing additional air to enter the lower area, exerting additional pressure on the oil. When the bypass closes, the air is forced through a venturi, which decreases the pressure, allowing oil to rise

tive abilities to trap the collected mix particulate. Hence even if the pre-production gest of the lower system had yielded reliable information as to its own efficiency as a trap, such information may not reasonably be projected to the upper system, where the explosion occurred.

I find that the collection chambers on Ensign's lower and upper vacuum collection systems were for use in "hazardous operation" and that in the context of the entire manual[10] the requirement that each system be "actually" tested "to assure that it is in safe working condition" means 'in condition to operate with safety to adjacent personnel' not merely 'with safety to itself.' Accordingly I find further that preponderent expert opinion required that in order to eliminate preventable hazard from the workplace, the lower and upper collection systems be tested to demonstrate whether normal production line operation would trap the collected mix in the collection chambers and that, in turn, required that after a test running for the duration of a normal shift, each pump be disassembled and examined to determine the presence or absence in the pump chambers of particles of the mix or particles of an inert material chosen to simulate the mix in the test. And finally I find that such test-

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through the dip tube and enter the dome, where it drips down, mixing with the venturi-produced air and leaving as a mist through the outlet port on its way to the tool to be lubricated. See Bodenrader, Minutes, 268-277, his diagram, Ex. C12, the manufacturer's catalogue, Ex. C10, and Ex. C21, and an exemplar of the device with which Mundt started in improvising the upper collection chamber. There is no evidence as to how Mundt modified the lubricator, other than that he connected the pump to the inlet port and the pencil wands to the exhaust. Significantly, Mundt did not know "the difference between a lubricator and a trap for particulates." Ex. C13, p. 1. Clearly the record affords no basis for projecting the results of even the very incomplete test on the lower system as a means of evaluating the upper system, the one which exploded.

[10] See especially manual, Part 307(a), quoted at p. 8, *supra*, and Part 100, quoted in full in Note 8.

ing would have constituted a feasible means of eliminating such hazard.

(3) Ensign's above summarized attempted justification of its use of water instead of oil as the liquid collection medium in the collection chambers fails. Each collection chamber had a pathway to atmosphere only through the adjacent pump, and neither pump could function unless for a portion of each cycle a part of the pump chamber containing airstream transporting collected mix particles was sealed off from the exhaust port, and so altogether sealed. This is demonstrated by the events of September 14, 1978, when something in the upper pump did not burn; it exploded violently while the upper pump was acting as a pressure vessel. Minutes, 780-781; 783; 792; 828. The use of oil as the liquid collection medium in the collection chambers as the manual required would have decreased the employee hazard. Reilly, Minutes, 838.

I find that preponderent expert opinion required the use of No. 10 mineral oil as the liquid collection medium in Ensign's collection chambers in order to eliminate preventable hazard from the workplace, and that such use was feasible in the premises.

(4) In its counter-consideration with respect to shielding adjacent work stations from the collection chambers and pumps, Ensign falls into double error; (i) there is no overall exception to the shielding requirement in favor of wet collectors with aggregate capacity not exceeding five pounds; and (ii) Ensign's collectors were "dry," not "wet." To be sure, Part 1502(g)(3) provides that "wet type collectors may be placed in the explosives operating bays or cubicle provided the quantity of explosives in the collectors does not exceed five pounds." Furthermore it is obvious from Exhibits R1(b) and C21 that the lower and upper chambers together did not have a capacity of five pounds of mix, and OSHA makes no contention to the contrary. But placing the lower and upper systems in the

bay[11] where collection of the excess mix was being carried out positioned those systems "in close proximity to work stations"[12] so that Part 1502(f)(8) required that such systems "shall be shielded." Furthermore Ensign's collectors were "dry", not "wet" because they lacked the centerpiece of the wet collector, i.e., the bubbling device unequivocally required by Part 1502(f)(5), and the mineral oil wet collecting medium required by Part 1502(f)(2), fifth sentence.

I find that preponderent expert opinion required that in order to eliminate preventable hazard from the workplace, the adjacent duty stations where Debra Christensen, Kimberly Charette, Carol Phillips, Katie White, Mary Mourcault and Dales Elder were working when they were injured by the explosion should have been shielded from the collection chambers and pumps.

D.

Ensign failed to comply with any of the three bodies of expert opinion discussed in Subparts B and C of this Part IV. For the reasons discussed just above at the end of Subpart C, neither the lower nor the upper chamber was an impinger or the substantial equivalent thereof in terms of employee safety. Also, Ensign failed to test for the purpose of determining employee safety, and Ensign failed to shield adjacent workstations from the collection chambers and the pumps. Since Ensign was cognizant of the hazards dealt with by the rules through the manual, which it had agreed to comply with, each of these omissions on Ensign's part constituted a violation of the general duty clause.

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[11] According to Reilly the table at which four girls operated the pencil wands was an "operating bay." Minutes, 890.

[12] See Compliance Officer's photograph, Ex. C4F showing the benches at which the girls sat who operated the pencil wands, with the "lower" system still on the lower deck of the cart, and the upper deck, on which the "upper" system rested at the time of the explosion. See, also Minutes, 1817. The "upper" system went out of the window and landed on the grass. Ex. C4J.

V.

Ensign's violations were willful

Ensign's violations were willful within the meaning of § 17(a) of the Act, 29 USC § 666(a). Of the four rules contained in the manual which stand for the preponderent expert opinion on employee safety practice applicable herein, i.e., the use of impingers as collection chambers, pre-production testing of the collection systems for employee safety, the use of mineral oil as the liquid collection medium in the collection chambers, and shielding personnel from the collection chambers and pumps, Ensign failed to comply with all four. This speaks eloquently of the quality of Ensign's defaults. One could be an oversight or even possibly two, but not four out of four. This consistent failure to comply negates an inference of oversight: instead of oversight it suggests "plain indifference" to the obligations which the Act imposes on employers, which is sufficient to constitute "willfulness" within the meaning of § 17(a). *A. Schonbek & Co., Inc.* v. *Donovan*, 646 F.2d 799, 800 (CA 2 1981) and cases collected.

Indeed consideration of the record makes a finding of plain indifference inescapable. How did Ensign, an experienced manufacturer of munitions for the DOD and of explosive and pyrotechnic products for the civilian market get itself into this position of consistent failure to comply? How, after agreeing to be bound by the manual, did it come to ignore the manual in each particular in which the manual imposed on it a duty herein? How, indeed?

The Aerospace Division, which had the responsibility for manufacturing the rocket, had a production manager —Murphy—who was so familiar with the impinger that he could draw a diagram of it from memory and testify regarding it without notes or prompting. Murphy was so convinced that the impinger was the form of chamber best suited for keeping collected material out of the pumps

that he clung to his opinion even in the face of evidence that Ensign had not used impingers. And how did it come about that Ensign did not use impingers? Because Murphy delegated the design and implementation of the collection systems to MacAllister, whose qualifications in safety matters pertaining to pyrotechnics were "nill";[13] who had no knowledge that there were devices readily available in the marketplace designed for the safe collection of explosives and pyrotechnics,[14] and who improvised a chamber for the lower system by gutting a compressed air line filter which he found in Ensign's parts bin and by reversing the airflow direction intended by the manufacturer of the filter, thus creating a device which couldn't and didn't produce the bubbling action central to an impinger. Because for the upper system MacAllister left it to Mundt, an Aerospace Division laborer, to duplicate the makeshift chamber which MacAllister had improvised for the lower system; because MacAllister never took the trouble to determine that Mundt had in fact not duplicated the lower chamber but had improvised further, for the upper system, another nonbubbling chamber which he concockted from something else in the parts bin, i.e., a compressed air supply line lubricator, again with the airflow direction designed by the manufacturer reversed; and because Murphy, who knew better, never took the trouble to determine that neither the lower nor the upper chamber was an impinger, with its unique safety functions.

Why was Ensign's failure to empty the collection chambers on Monday and Tuesday, September 11th and 12th, willful although both chambers were emptied on the 13th and Ensign was in the process of emptying the chambers when the explosion occurred on the 14th? Why didn't emptying on the 13th and partial emptying on the 14th

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[13] Pretrial conference Minutes, 119.

[14] Ex. C2, p. 4.

show an intention to effect substantial compliance, thus tending to negate the appearance of "plain indifference?"

Unfortunately for Ensign its failure to empty does not stand alone: it must be evaluated in the context of Ensign's total conduct. Ensign, by failing to use impingers, had down-graded the chambers from wet collectors to mere settling chambers, the most primitive form of particle collector. See Ex. 19, Best's Guide, at page 884. In a settling chamber the collected particles drop by gravity to the bottom of the chamber if it is empty. But if, while the chamber is full, the pump is creating vacuum at the top of the chamber as here, then the negative airstream could carry particles straight through from the makeshift inlet port of the collection chamber to the makeshift exhaust port of the collection chamber and straight into the pump and all its dangers.[15] Furthermore Ensign had failed to test the efficiency of the collection chambers as the manual required, thereby depriving itself of knowledge of the rate at which under conditions of normal production collected mix particles would move into the pumps. Operating the vacuum system on the 11th and 12th without emptying could thus have resulted in an accumulation of mix in the pumps, which was not decreased by emptying the collection chambers on the 13th or by emptying the lower chamber on the 14th, and it was the upper chamber which exploded. In order to mitigate its defaults to empty on the 11th and 12th, its default in substituting settling chambers for wet collectors, and its default in failing to test the efficiency of collection chambers, Ensign should not only have emptied the collection chambers on the 13th; it should have cleaned the pumps. Not having done so, it remained in willful violation for failure to empty on the 11th and 12th.

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[15] Reilly, Minutes, 835-837, 875, 929.

The case for willfulness with respect to Ensign's two remaining defaults is at least equally clear. With respect to the liquid collection medium, Picatinny's Major Component Safety Data Statement, specific to the mix herein, expressly warned against the use of water; the manual expressly required the use of mineral oil; and MacAllister, who was in charge of setting up the two collection systems, and who knew enough about the operation of a rotary vane vacuum pump to draw a diagram of it and explain it, must have know that the pumps did not provide a continuously open path to atmosphere. Indeed it was Wergen, an Ensign technician, who characterized the upper pump as a pressure vessel when it exploded.[16] And with respect to shielding the adjacent work stations from the collection chambers and the pumps, it was Ensign's own Process Specification which required that "All handling of the mix in its final stage must be done behind barricades. . . ."

VI

None of Ensign's defenses in law is valid.

(a) *The general duty clause is not so vague that, as here applied, it failed, in violation of the Fifth Amendment, to notify Ensign as to the duty to be imposed.* The seminal case on the interpretation of the general duty clause is *National Realty & Construction Co.* v. *Secretary of Labor*, 489 F.2d 1257 (CA DC 1973). The court took as the basis for its rationale the language of Congress that each employer must furnish employment "free from recognized hazards. . . ." The court then articulated a gloss which would prevent cases within this very broad language from overflowing the limits of the notice requirements of the Fifth Amendment, i.e., pre-violation, pre-inspection notice to the employer as to the nature of the duty which § 5(a)(1) sought to impose on him, and once an enforcement proceeding under the clause was

[16] Minutes, 1837.

commenced, notice as to the precise nature of the violation with which he was charged. Thus the court required OSHA not only to prove that the hazard was in fact recognized: the court derived from the statutory expression "recognized" a requirement that the hazard result not from idiosyncratic employee conduct but from conduct which safety experts would foresee and deem feasibly preventable (pp. 1265-1267); and it required OSHA to prove these elements as well. In the court's language, "an employer is unfairly deprived of an opportunity to cross-examine or to present rebuttal evidence and testimony when it learns the exact nature of its alleged violation only after the hearing" (p. 1267).

This principle became further embedded in the interpretation of the Act when other courts sought a solution for the parallel notice problem created by the Secretary in seeking to implement by regulation the sometimes sparse provisions of the Act with the very broad requirement of 29 CFR § 1910.132(a) that each employer provide and require employees to use personal protective equipment "whenever it is necessary by reason of hazards. . . ." Thus in *Cape & Vineyard Division* v. *OSAHRC*, 512 F.2d 1148, 1152 (1975), the First Circuit recognized the analogous authority of *National Realty* and stated and solved the problem in express Fifth Amendment terms, merely restating the general duty clause formulation "recognized hazard" in terms of "conduct unacceptable in the light of common understanding and experience of those working in the industry" and substituting for the general duty clause expression "preventable hazard" the concept of "an objective test . . . whether a reasonably prudent man familiar with the circumstances would have protected against the hazard." More at length, the *Cape and Vineyard* rationale was as follows:

> A regulation without ascertainable standards, like this one, does not provide constitutionally adequate warning to an employer unless read to penalize only

> conduct unacceptable in the light of common understanding and experience of those working in the industry. * * *
>
> Of course if an employer is shown to have actual knowledge that a practice is hazardous, the problem of fair notice does not exist. But in the absence of actual knowledge, an objective test is whether a reasonably prudent man familiar with the circumstances of the industry would have protected against the hazard. See generally *National Realty & Construction Co.* v. *OSHRC*, 160 U.S. App. D.C. 133, 489 F.2d 1257, 1265 & n. 32 (1973). (512 F.2d p. 1152, footnote omitted)

To the same effect see also *Usery* v. *Marquette Cement Mfg. Co.*; 568 F.2d 902, 909-910 (CA 2 1977); *Ryder Truck Lines* v. *Brennan*, 497 F.2d 230, 233-234 (CA 5 1974). Thus *National Realty*, reinforced by *Cape & Vineyard*, *Marquette*, and *Ryder*, states a rule for harmonizing the employer's right to notice with the public interest in an interpretation of the Occupation Safety and Health Act broader than the express provisions of the standards yet within the requirements which a prudent, experienced employer would nevertheless deem feasible and appropriate to attainment of the purposes of the Act. As such the rule requires a holding that the general duty clause, read to forbid only recognized, feasibly preventable, hazardous practices and as applicable here, is not unenforceably vague.

(b) *There is no inconsistency between a claim which arises under the general duty clause, § 5(a)(1) of the Act, 29 USC § 654(a)(1), and a claim of willfulness under § 17(a), 29 U.S.C. § 656(a).* To be sure, OSHA can make but a *prima facie* case under the general duty clause by proving *scienter* as to the hazard in question in the industry of which the employer is a part, rather than in the employer himself, and by proving feasible preventability within the cognizance of safety experts, whereas to prove willfulness, OSHA must bring these

element home to the employer himself. But if OSHA can bring home to the employer himself personal knowledge of the hazard, personal knowledge of feasible preventability, and personal knowledge of the contours of the general duty clause, then the violation of the general duty clause will be willful. This is illustrated by cases in which three courts have dealt with general duty clause claims in which willfulness was alleged. In chronological order these cases are *Empire-Detroit Steel* v. *Marshall*, 579 F.2d 378 (CA 6 1978), *Babcock & Wilcox Co.* v. *Secretary of Labor*, 622 F.2d 1160 (CA 3 1980), and *St. Joe Minerals Corp.* v. *Marshall*, 647 F.2d 840 (CA 8 1981). In *Empire-Detroit*, where the employer used a method of disposing of molten slag in its steel mill, which method caused ten major explosions and an employee fatality and where despite these occurances the employer continued to use the same method, resulting in two more explosions which injured ten more employees, the court found the general duty clause violation willful. In *Babcock & Wilcox* the ground surrounding a scrap steel furnace became flooded with water due to a leak in the cooling system of an adjoining facility. If the molten slag in the furnace combined with the water, an explosion could occur. Despite the use of customary procedures to remove the water, there was some water left when the steel in the tank became ripe for tapping. At this point Babcock was faced with alternatives, each potentially dangerous: (1) postpone the tapping until the water removal was completed, thus avoiding a "runner"—i.e., a spill incident to the tapping, but this would open up the possibility that by prolonging the exposure of the furnace lining to the molten steel, the steel would burn a hole in the lining and leak out into the area still covered with water—in other words, what steel men call a "cut-through", or (2) tap the furnace, ending the risk of a cut-through but creating the possibility of a runner. While noting that management could have been

more thorough in determining the scope of the flooded area and mobilizing the plant's resources for getting rid of the water, the court found that Babcock "did not obstinately refuse to comply with or act in defiance of safety rules, or proceed with such disregard of consequences as to be equivalent to a knowing or conscious disregard of, or plain indifference to, or flouting of, the general duty clause," 622 F.2d p. 1166. At its lead smelter in Herculaneum, Missouri, St. Joe had a freight elevator which carried vehicles and other heavy cargoes. The elevator had outer and inner doors with an interlocking system under which the elevator could not move unless all doors were closed. The system, however, was easy to override and when the doors were damaged, as sometimes happened, the interlock would be bypassed and the elevator would be moved without all doors being secured. When a door was accidentally injured, Pettus, a head foreman, called an electrician, who bypassed the interlocking system. Shortly after learning of the bypass, Pettus called the electrician and directed him to remove the override before the end of the current shift; but the electrician never returned to the plant and never notified anyone that he was not carrying out the directive. Meantime the elevator moved with a "bobcat" partly on and partly off, killing the driver. The court concluded that

> Although it is clear in hindsight that some risk remained, the petitioner's conduct falls short of plain indifference to the general duty clause. 647 F.2d p. 849.

Both the Third and the Eighth Circuits cited *Empire-Detroit* with tacit approval, 622 F.2d 1164-1165, 647 F.2d p. 547, indicating a consensus among the courts which have passed in the print that where "plain indifference" does obtain, nothing in principle precludes a holding that a general duty clause violation was willful. *A fortiorari* as applied in the case at bar, where preponderent expert opinion not only pointed to hazard, but

specified in advance just what measures prudence required in order to eliminate such hazard from the workplace.

(c) *The complainant did not fail to state a claim upon which relief can be granted because it did not allege that the citation was based on a preventable accident.* Ensign raised this defense by motion to dismiss under Rule 12(b)(6). See Ensign's brief on motion to dismiss pp. 12-15. Before the trial the defense was overruled as a matter of Law by Order No. 7, pp. 8-11. Since the defense challenges the jurisdiction of the Commission over the subject matter of the action, the validity of the defense will here be briefly re-examined. In *National Realty*, the Court of Appeals for the District of Columbia Circuit pointed out that

> To establish a violation of the general duty clause, hazardous conduct need not actually have occurred for a safety program's feasibly curable inadequacies may sometimes be demonstrated before employers have acted dangerously." 489 F.2d p. 1267.

In *Brennan* v. *Vy Lactos Laboratories*, 494 F.2d 460, 463 (1974) the Eighth Circuit explained its holding in part as follows:

> Neither the general duty clause nor section 17(a) [which defines "serious" violations] requires any actual death or physical injury for a violation to occur. A violation occurs whenever an employer fails to take reasonable precautionary steps to protect his employees from reasonably forseeable "recognized hazards" that are causing or are likely to cause death or serious physical injury.

And the preposition has recognized repeatedly in the Second Circuit. See, e.g., *Usery* v. *Marquette Cement Mfg. Co.*, 568 F.2d 902, 910 (1977)—"The Secretary need not show an actual injury to prove a § 5(a)(1) violation." Also *REA Express* v. *Brennan*, 495 F.2d 822, 825

(1974)—"The statue may well be violated even though no accident or injury occurs."

(d) *Ensign's willful conduct continued down to the moment when the explosion occurred on September 14, 1978.* Despite Ensign's argument to the contrary, Minutes, 1468-1489, Ensign's "plain indifference" did not end when it implemented the upper system on or about September 1, 1978. Until the explosion, it continued to expose its employees to the same known preventable hazards; and in failing to empty the collection chambers and to clean the pumps, it exposed them to hazard additional to that which obtained when the lower and then the upper system was put into production.

As above indicated, the amended citation and the proposed penalty are affirmed.

/s/ Robert P. Weil
ROBERT P. WEIL
Judge, OSHRC

Dated: February 19, 1982
Boston, Massachusetts

APPENDIX C

[SEAL]

UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND
HEALTH REVIEW COMMISSION
1825 K Street, NW
Washington, D.C. 20006
April 19, 1982

CORRECTED COPY

OSHRC Docket No. 78-4945

IN REFERENCE TO SECRETARY OF LABOR

v.

ENSIGN-BICKFORD COMPANY

NOTICE OF FINAL ORDER

The petition for discretionary review filed by Respondent was received by the Commission on March 10, 1982. The petition has been considered by the individual Commission Members and no Commission Member has directed review. Therefore, the petition is deemed to be denied. Rule 90(b)(3), 29 CFR § 2200.90(b)(3). Section 12(j) of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 661(i).

The decision of the Administrative Law Judge became a final order of the Commission on April 12, 1982.

For The Commission

/s/ Ray H. Darling, Jr.
RAY H. DARLING, JR.
Executive Secretary

NOTICE IS GIVEN TO THOSE LISTED BELOW:

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APPENDIX D

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

SEPTEMBER TERM, 1983

No. 82-1649

THE ENSIGN BICKFORD COMPANY,
Petitioner

v.

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION, AND RAYMOND J. DONOVAN, SECRETARY OF LABOR,
Respondents

Filed Oct. 20, 1983

Before: Wright and Scalia, Circuit Judges, and Weigel*, Senior District Judge for the Northern District of California

ORDER

On Consideration of the Petition for Rehearing of Petitioner, filed September 30, 1983, it is

ORDERED by the Court that the aforesaid Petition is denied.

Per Curiam

For the Court:

GEORGE A. FISHER,
Clerk

By /s/ Robert A. Bonner
ROBERT A. BONNER
Chief Deputy Clerk

---

* Sitting by designation pursuant to Title 28 U.S.C. § 292(d).

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

SEPTEMBER TERM, 1983

No. 82-1649

THE ENSIGN BICKFORD COMPANY,
Petitioner

v.

OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION, AND RAYMOND J. DONOVAN, SECRETARY OF LABOR,
Respondents

Filed Oct. 20, 1983

Before: Robinson, Chief Judge; Wright, Tamm, Wilkey, Wald, Mikva, Edwards, Ginsburg, Bork, Scalia and Starr, Circuit Judges

ORDER

The Suggestion for Rehearing *en banc* of Petitioner, filed September 30, 1983, has been circulated to the full Court and a majority of the Judges in regular active service have not voted in favor thereof. On consideration of the foregoing, it is

ORDERED by the Court *en banc* that the aforesaid Suggestion is denied.

Per Curiam

For the Court:

GEORGE A. FISHER,
Clerk

By /s/ Robert A. Bonner
ROBERT A. BONNER
Chief Deputy Clerk

Circuit Judges Tamm and Wilkey would grant the Suggestion for Rehearing *en banc*.